Scoring table:

score:

Title:

Sequence: Perfect

ı

OM protein

Run on:

```
Sequence 7, Appli
Sequence 1, Appli
Sequence 21, Appli
Sequence 21, Appli
Sequence 3, Appli
Sequence 236, Ap
Sequence 654, App
Sequence 654, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 5, Appli
Sequence 19, Appli
Sequence 19, Appli
Sequence 19, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 1, Appli
                                                 Sequence 160, App
Sequence 1040, Ap
Sequence 201, App
Sequence 29, Appl
Sequence 27, Appl
Sequence 199, App
Sequence 7, Appli
Sequence 7, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1810, Application US/0983381
Fatent No. US20020132090A1
GENERAL INFORMATION:
APPLICANT: Robison, Keith E.
TITLE OF INVENTION: No. US20020132090A1e1 Nucleic Acid and Protein Homologs
FILE REFERENCE: 5800-119
CURRENT APPLICATION NUMBER: US/09/833,381
CURRENT FILING DATE: 2001-04-11
PRIOR APPLICATION NUMBER: 09/516,448
PRIOR PILING DATE: 2000-22-29
NUMBER OF SEQ ID NOS: 2050
SOFTWARE: FastSEQ for Windows Version 3.0
LENGTH: 3033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 266, App
Sequence 268, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 405,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3033
880
US-09-833-381-1810

US-10-108-260A-953

3 US-10-12-944-160

3 US-10-264-237-1040

6 US-10-085-198-29

6 US-10-085-198-29

6 US-10-085-198-25

6 US-10-096-625-199

3 US-10-096-625-199

3 US-10-096-625-199

3 US-10-085-198-25

4 US-10-085-198-25

5 US-10-085-198-25

5 US-10-085-198-27

8 US-10-085-198-27

105-09-817-1
                                                                                                                                                                                                                                                                                                                                                                                                   US-09-960-706-654

US-09-973-319-408

US-09-873-319-408

US-10-608-397-3

US-10-608-397-5

US-10-292-081A-5

US-10-292-081A-5

US-10-292-081A-5

US-10-159-563-136

US-10-159-563-136

US-09-756-247-3

US-09-756-247-3

US-10-312-309-3

US-10-312-309-3

US-10-608-397-2

US-10-608-397-2

US-10-608-397-2

US-10-99-71-151A-9

US-09-972-211-1

US-09-972-211-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ALIGNMENTS
                             0
4535.50
       \begin{array}{c} 10.10.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.20.10 \\ 10.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ) ORGANISM: Homo sapiens
US-09-833-381-1810
       US-09-833-381-1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores:
Pred. No.:
Score:
                                                    2962.5
1819.5
1767.5
1542.5
1539.5
1444.5
                                                                                                                                                                                                                                                                                                                                                                                                             1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1440
1440
1440
1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1438
1429
1429
1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 1
                                                                                                                                                                   Command line parameters:
-WODEL=frame+ p2n.model -DEV=Xlh
-WODEL=frame+ p2n.model -DEV=Xlh
-Q=/Cgn2 1/045/app_query.fasta_1.1607
-Q=/Cgn2 1/USPQ-spool/US10020095/runat_10082004_154042_17445/app_query.fasta_1.1607
-Q=/Cgn2 1/USPQ-spool/US10020095/runat_108204_154042_17445/app_query.fasta_1.1607
-DB=Published Applications NA -QFMT=fastap -SURFIX=p2n.rnpb -MINNATCH=0.1
-LOOPELT=0 -LOOPEXT=0 -UNITS=bits -START=1 -RMS =DI -MARRIX=blosum62
-TRANS=human40.cdi -LIST=45 -DOCALIGN=20 -THR ROSE=pct -THR MAX=100
-MAXIEN=2000000000 -USR=US10020095 @CGN 1 1 984 @runat 10082004 154042_17445
-NGPU=6 -ICPU=3 -NO MMAP -LARGEQUERY -NEG_SCRES=0 -WAIT -DSPBLOCK=100
-LONGING -DEV TINEOOT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5
-FGAPOP=6 -FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                      August 18, 2004, 04:49:17; Search time 1365 Seconds (without alignments) 5133.066 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                  7348
1 MQGPPLLTAAHLLCVCTAAL......HSSVIFIFCFKLLYFMELWL 1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "GOTO E OPTIONE NATIONAL ON THE NEW PUB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO7 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO6 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO6 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO6 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO7 NEW PUB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO8 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO8 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO8 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO8 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // Pubpna/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // PUBDNA/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // PUBDNA/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // PUBDNA/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // PUBDNA/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // PUBDNA/USO9 PUBCOMB. SEQ: *

(GOTO E OPTIONAL AL // PUBCOM
    GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                           nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3225727 segs, 2453303834 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Published_Applications_NA:*
                                                                                                                                                                                                                                                                                                                                                           7.00
                                                                                                                                                                                                                                                                                                                      BLOSUM62
Xgapop 10.0 , Xgapext 0
Ygapop 10.0 , Ygapext 0
Fgapop 6.0 , Fgapext 7
Delop 6.0 , Delext .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query
Match Length DB
                                                                                                                                                                                                                                         US-10-020-095-4
```

Jatabase :

Score

Kasult No.

Qy 21 AlavalAlaProGlyProArgPheLeuValThrAlaProGlyIleIleArgProGlyGly 40	Oy 41 AsnvalThrileGlyValGluLeuLeuGluHisCysProSerGlnValThrValLysAla 60 	Oy 61 GlubeuLeuLysThrAlaSerAsnLeuThrValSerValLeuGluAlaGluGlyValDhe 80 	Oy 81 GlulysGlySerPheLysThrLeuThrLeuProSerLeuPsnSerAlaAspGlu 100	Oy 101 IleTyrGluLeuargValThrGlyàrgThrGlnäspGluIleLeuPheSeràsnSerThr 120	H—Ω ∺ 4	141 LysProLysGlnGluValLysPheArglleValThrLeuPheSerAspPheLysProTyr 1	161 LysThyserleuAsn1leLeo11eLysAspPycLysSerAsnleo1nGlnTrpLeo 1	181	Oy 201 LeuGlyAspTrpSerIleGlnValGlnValAsnAspGlnThrTyrTyrGlnSerPheGln 220	Oy 221 ValSerGluTyrValLeuProLysPheGluValThrLeuGlnThrProLeuTyrCysSer 240	Oy 241 MetasnSerLysHisLeuAsnGlyThrIleThrAlaLysTyrThrTyrGlyLysProVal 260	Oy 261 LysGlyAspValThrLeuThrPheLeuProLeuSerPheTrpGlyLysLysLysLysAsnIle 280 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Qy 281 ThriysThrPhelysIleAsnGlySerAlaAsnPheSerPheAsnAspGluGluMetLys 300 	Qy 301 AsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuAspLeuSerSerProGlyPro 320 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	321 ValGluIleLeuThrThrValThrGluSerValThrGlYlleSerArgAsnValSerThr 3	Qy 341 AsnValPhePheLysGlnHisAspTyrIleIleGluPhePheAspTyrThrThrThrValLeu 360 nh 1086 AarthornCarchardanaraanaacaanaanaanaanaanaanaanaanaanaanaana	361 LysProSerLeuAsnPheThrAlaThrValLysValThrArgAlaAspGlyAsnGlnLeu 380 [
SerAlaAsnGlyPheGlyPheAlaIleCysGlnLeuAsnValValTyrAsnValLysAla 12	1249 SerGlySerSerArgArgArgSerIleGlnAsnGlnGlualaPheAspLeu 2166 TCGGGGCCTTAGAAGACGAAGACCTATCAAAACCAAAACCAAAACCAAAACCAAAACCAAAACCAAAA	1269 AlaValLySGluAsnLySASpAspLeuAsnHisValAspLeuAsnValCySThrSerPhe 1281 2226 GENETAAAAGAAATAAAGATAATCAFCTCAATTATAAGATTTT 9281	1289 SerGlyProGlyArgSerGlyMetAlaLeuMetGluValAsnLeuLeuSerGlyPheMet 130 2286 TGGGGCCCGGGTAGGATGGATGAGTTAACCTATTAAGTGGCTTTAAGAGTTAACCTATTAAGAGTTAACCTATTAAACTTAACTGGCTTTAAGAGTTAACTGGATTAAACTGGATTAAACTGGAGTTAAACTGGAGTTAAACTG	1309 ValProSerGlualaileSerLeuSerGluthrValLysLysValGlutyrAspHisGly 132. 2346 GIGCCTTCAGAACAATTTCTCTGAGCGAACAAGTGAAAAAAGTGGAAAAAAAGTGAAAAAAGTGAAAAAA	1329 LysLeuAsnLeuTyrLeuAspSerValAsnGluThrGlnPheCysValAsnIleProAla 134	13	Oy 1369 GluproArgArgGlnAlaValArgSerTyrAsnSerGluValLysLeuSerSerCysAsp 1388	- 7	HisserSerValllePhellePheCysPheLysLeuLeUTyrPheMetGluLeuTrpLeu		September Sept	FILE DE INVENTION: NO. USZUGATOUGSSOCATEL LUII LENGUN CENA FILE REPERENCE: HI-AGIO6 CURRENT APPLICATION NUMBER: US/10/108,260A CURRENT FILING DATE: 2002-03-27	NOTIVER OF SEC 1D NOS: 5458 SEQ ID NO 953 ENGTH: 2273	; IIEE: DNA ; ORGANISM: Homo sapiens US-10-108-260A-953	3360.00 100.00%	Y: TOO.00% Mismacmes: 45.73% Indels: 16 Gaps:	US-10-020-095-4 (1-1428) x US-10-108-260A-953 (1-2273) Qy	

```
FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                1505
                                                                                                                                                                                                                                                                                                                                            1685
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1925
                         1325
                                                                                                                               1445
                                                                                                                                                                                                                                     1565
                                                                                                                                                                                                                                                                                        1625
                                                                                                                                                                                                                                                                                                                                                                                     1865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1985
                                                                            1385
                                                   440
                                                                                                                                                                                                                                                               520
                                                                                                                                                                                                                                                                                                                                                                      560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               640
                                                                                                     460
                                                                                                                                                        480
                                                                                                                                                                                                          500
                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                        580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ThrGlnProAspSerIleValGlyIleValAlaValAspLysSerValAsnLeuMetAsn
                                                                                                                                                                                                                        ProGluAsnSerTrpThrProLysAlaCysValIleValTyrTyrIleGluAspAspGly
                                                                                                                                                                                                                                                                                                                                  CCAGAAAATTCTTGGACTCCAAAAGCCTGTGTAATTGTGTTATTATATTGAAGATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACACAGCCTGACTCCATAGTTGGAGTTTGTAGCTGTTGACAAAAGTGTGAATCTGATGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AlaserasnaspilethrmetGluasnValValHisGluLeuGluLeuTyrAsnThrGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Thr Val ProGln Ser Gly Thr Phely sile Gluphe Prolle Leu Glu Asp Ser Ser Glu
                                                                  ACTGTCCCCCDAAGTGGAACTTTTAAGATTGAATTCCCAATCCTGGAGGATTCCAGTGAG
                                                                                                    LeuGlnLeuLysAlaTyrPheLeuGlySerLysSerSerMetAlaValHisSerLeuPhe
                                                                                                                                                                            446 AAGTCTCCTAGTAAGACATACATCCAACTAAAAACAAGAGATGAAAATATAAAAGTGGGA
                                                                                                                                                                                                                                                              ValSerArgGlyGlnLeuValAlaValGlyLysGlnAsnSerThrMetPheSerLeuThr
                                                                                                                                                                                                                                                                                                                                                                     GluileileSerAspValLeuLysIleProvalGlnLeuValPheLysAsnLysIleLys
                                                                                                                                                                                                                                                                                                                                                                                                                       LeuTyrTrpSerLysValLysAlaGluProSerGluLysValSerLeuArglleSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTATATTGGAGTAAAGTGAAAGCTGAACCATCTGAGAAAGTCTCTTTAGGATCTCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATTATTTAGGCATGTTCATGAATTCTTTTGCAGTCTTTCAGGAATGTGGACTCTGGGTA
TyrTrpSerGlySerAsnSerGlyAsnGlnLysMetGluAlaValGlnLysIleAsnTyr
                                                                                                                    LysSerProSerLysThrTyrIleGlnLeuLysThrArgAspGluAsnIleLysValGly
                                                                                                                                                                                                          SerProPheGluLeuValValSerGlyAsnLysArgLeuLysGluLeuSerTyrMetVal
                                                                                                                                                                                                                                                                                        1566 grarccagggggggggggggggggggaaaggaaagracaacaargrictriraaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TyrTyrLeuGlyMetPheMetAsnSerPheAlaValPheGlnGluCysGlyLeuTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuThraspAlaAsnLeuThrLysAspTyrIleAspGlyValTyrAspAsn 657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-112-944-160

Sequence 160, Application (US/10112944

; Publication No. US20040048249A1

; GENERAL INFORMATION:

; APPLICANT: Yang, Yonghong

; APPLICANT: Weng, Geahl

; APPLICANT: Ren, Felyan

; APPLICANT: Weng, Jian-Rui

; APPLICANT: We, Aidong J.

; APPLICANT: Webrman, Tom

; APPLICANT: Wang, Jian-Rui

; APPLICANT: Wang, Dunrui

; APPLICANT: Wang, Dunrui

; APPLICANT: Wang, Dunrui

; APPLICANT: Wang, Dunrui

; APPLICANT: Wang, Zinwei

; TITLE OF INVENTION: No. US20040048249Alel Nucleic Acids and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-112-944-160
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1746
                                                                             1326
                                                                                                        441
                                                                                                                                  1386
                                                                                                                                                           461
                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                  501
                                                                                                                                                                                                                                                                                                                    521
                                                                                                                                                                                                                                                                                                                                              1626
                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                           561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      641
  401
                                                      421
                       셤
                                                                             엄
                                                                                                        8
                                                                                                                                 셤
                                                                                                                                                          8
                                                                                                                                                                                 g
                                                                                                                                                                                                             8
                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
 ò
                                                   à
```

```
LysProLysGlnGluValLysPheArgIleValThrLeuPheSerAspPheLysProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GluLysGlySerPhelysThrLeuThrLeuProSerLeuProLeuAsnSerAlaAspGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          380 ATTTATGAGCTACGTGTAACCGGACGTACCCAGGATGAGATTTTATTCTCTAATAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ArgleuSerPheGluThriysArgIleSerValPheIleGluThrAspLysAlaLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MetGlnGlyProProLeuLeuThrAlaAlaHisLeuLeuCysValCysThrAlaAlaLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41 AsnValThrileGlyValGluLeuLeuGluHisCysProSerGlnValThrValLysAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlubeubeulysThrAlaSerAsnbeuThrValSerValbeuGluAlaGluGlyValPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                260 GAGCTGCTCAAGACAGCATCAAACCTCACTCTCTGTCCTGGAAGCAGAAGAAGAGTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               101 IleTyrGluLeuArgValThrGlyArgThrGlnAspGluIleLeuPheSerAsnSerThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21 AlaValAlaProGlyProArgPheLeuValThrAlaProGlyIleIleArgProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1880
587
0
2
21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-020-095-4 (1-1428) x US-10-112-944-160 (1-1880)
TITLE OF INVENTION: Secreted Polypeptides FILE REFERENCE: 805A CURRENT APPLICATION NUMBER: US/10/112,944 CURRENT APPLICATION NUMBER: US 09/488,725 PRIOR PLING DATE: 2002-03-28 PRIOR FLING DATE: 2000-01-21 PRIOR FLING DATE: 2000-01-25 PRIOR FLING DATE: 2000-01-25 PRIOR PRIOR PRIOR DATE: 2000-01-25 PRIOR PRIOR PLING DATE: 2000-02-03 PRIOR FLING DATE: 2000-02-03 PRIOR FLING DATE: 2000-02-03 PRIOR FLING DATE: 2000-03-07 PRIOR PLING DATE: 2000-03-07 PRIOR PLING DATE: 2000-03-07 PRIOR PRIOR PRIOR DATE: 2000-03-07 PRIOR PRIOR DATE: 2000-03-07 PRIOR PRIOR DATE: 2000-03-07 PRIOR FLING DATE: 2000-03-07 PRIOR PLING DATE: 2000-03-07 PRIOR PLING DATE: 2000-03-07 PRIOR PLING DATE: 2000-03-07 PRIOR PLING DATE: 2000-05-18 PRIOR PRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score: 2962.50
Percent Similarity: 96.23%
Query Match: 10.32%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; LOCATION: (80)..(1867)
US-10-112-944-160
```

199

9

40.

259

319

80

160

559

140

; TYPE: DNA ; ORGANISM: Homo sapiens US-10-276-774-601 Alignment Scores: 9.72e-168 Length: 1459 Fred. No.: 1767.50 Matches: 359 Secore: Similarity: 94.01% Conservative: 2	Similarity: 93.49\$ Mismatches: ih: 24.05\$ Indels: 13 Gaps: 095-4 (1-1428) x US-10-276-774-601 (1-1459)	Oy 1067 AspValGinGluSerileHisPheLeuGluSerGluPheSerArgGlyileSerAspAsn 1086 :::	Oy 1087 TyrThrleuhlaLeulleThrTyrAlaLeuSerSerValGlySerProLysAlaLysGlu 1106	Oy 1107 AlaLeuAsnMetLeuThrTrpArgAlaGluGluGlyGlyMetGlnPheTrpValSer 1126	luvalal aagtrgo	IleMetArg ATTATGAGG	Qy 1167 TrpLeuSerArgGlnArgAsnSerLeuGlyGlyPheAlaSerThrGlnAspThrThrVal 1186	Qy 1187 AlaLeuLysAlaLeuSerGluPheAlaAlaLeuMetAsnThrGluArgThrAsnIleGln 1206	Qy 1207 ValThrValThrGlyProSerProSerPro	Oy 1218	Oy 1229 erAlaAsnGlyPheGlyPheAlaIleCysGlnLeuAsnValValTyrAsnValLysAlaS 1249 Db 915 CCGCAAATGGTTTTGGATTTTGTCAGCTCAATGTTGTAATGTAGAGGCTT 856	1249 erGlySerSerArgArgArgArgSerIleGlnAsnGlnGluAlaPheAspLeuAspValA 12	TGTyWetAlaleuMetGluValashleuheusstifyremetv 130 	675 TGCCTTCAGAAGCAATTTCTCTGAGCGACACAGTGAAGAAAGTGGAATATGATCATGGAA 616	Qy 1329 ysLeuAsnLeuTyrLeuAspSerValAsnGluThrGlnPheCysValAsnIleProAlaV 1349
Db 302 CAAAGAAATAGCTTGGGTGGTTTTGCATCTACTCAGGATACCACTGTGGCTTTAAAGGCT 361 Qy 1191 LeuSerGluPheAlaAlaAlaLeuMetAsnThrGluArgThrAsnIleGlnValThrValThr 1210 Db 362 CTGTCTGAATTTGCAGCCTAATGAATAAGAAAGGACAAATATCCAAGTGACGTGAGG 421 Qy 1211 GlyProSerSerPerPoserPro	Db 422 GGGCCTACTCCAAGTCCTGTAAAGTTTCTGATTGACACACAC	Cy 1234 GlypheAlaileCysGlnLeuAsnValValTyrAsnValLysAlaSerGlySerSerArg 1253 Db 542 GGATTTGCTATTTGTCAGCTCAATGTTGTATATAATGTGAAGGCTTCTGGGTCTTCTAGA 601	Cy 1254 ArgArgArgSerIleGlnAsnGlnGluAlaPheAspLeuAspValAlaValLysGluAsn 1273	Qy 1274 LysaspaspleuasnisvalaspleuasnvalCysThrSerPheSerGlyArg 1293 	Oy 1294 SerGlyMetalaLeuMetGluValAsnLeuLeuSerGlyPheMetValProSerGluAla 1313 	Qy 1314 IleSerLeuSerGluThrValLysLysValGluTyrAspHisGlyLysLeuAsnLeuTyr 1333 	Qy 1334 LeuaspservalasnGluthrGlnPhecysvalasnIleProalavalargasnPheLys 1353 	Qy 1354 ValSerAsnThrGlnAspAlaSerValSerIleValAspTyrTyrGluProArgArgGln 1373 	Qy 1374 AlaValArgSerTyrAsnSerGluValLysLeuSerSerCysAspLeuCysSerAspVal 1393 Db 962 GCGGTGAGAAGTTACAACTCTGAAGTGAAGCTGTCCTCTGTGACCTTTGCAGTGATGTC 1021	Oy 1394 GInGlyCysArgProCysGluAspGlyAlaSerGlySerHisHisHisSerSerVallle 1413 Db 1022 CAGGGCTGCCGTCCTTGTGAGGATGGAGCTTCAGGCTCCCATCATCATCTTCAGTCATT 1081	Oy 1414 PhellePheCysPheLysLeuLeuTyrPheMetGluLeuTrpLeu 1428 	RESULT 5 US-10-276-774-601/c i Sequence 601, Application US/10276774 ; Publication No. US20040053245A1 ; GENERAL INFORMATION: ; APPLICANT: Hyseq, Inc. ; APPLICANT: Hyseq, Inc. ; APPLICANT: Tang, Y, Tom et al ; TITLE OF INVENTION: No. US20040053245A1e1 Nucleic Acids and Polypeptides		; PRIOR FILING DAIE: 2000-04-2/ ; PRIOR APPLICATION NUMBER: 09/496,914 ; FILING PAIE: 2000-02-03	; NUMBER OF SEQ ID NOS: 2700 ; SEQ ID NO 601 ; LENGIH: 1459

Qy 21 AlaValAlaProArgPheLeuValThrAlaProGlyIlelleArgProGlyGly 40	Oy 80 PhedluLysGlySerPheLysThrLeuThrLeuProSerLeuProLeuAsnSerAlaAsp 99 ::: :: :: ::	Oy 117 SerAsnSerThrArgLeuSerPheGluThrLysArgIleSerValPheIleGlnThrAsp 136 Db 684 CACAACAGACCTGGGGGCGCGGGGGGGCGCTTCTGTATTCATCCAGACGGAC 743 Oy 137 LysAlaLeuTyrLysTycLysGlnGluValLysPheArgIleValThrLeuPheSerAsp 156 16 Db 744 AAGCCTGTGTACAGACCCCAGCACCGAGTGCTCATAAAGCATCTCACCGTCTCTCCAAAT 803	Oy 157 PheLysProTyrLysThrSerLeuAsnlleLeulleLysAspProLysSerAsnLeulle 176	QY 196 SerSerHisProlleLeuGlyAspTrpSerIleGlnValGlnValAsnAspGlnThrTyr 215	236 ProLeuTyrCysSerMetAsnSerLysHisLeuAsnGlyThrIleThrAlaLysTyrThr	Qy 274 TrpGlyLysLysLysAsnIleThrLysThrPheLysIleAsnGlySerAlaAsn 291 ::: :: ::: :::	312 TyrLeuAspLeuSerSerProGlyProValGlulleLeuThrThrVal	Db 1305 ACCAGTGTGGACGAGGCGAGCAG
OY 1349 alArgAsnPheLysValSerAsnThrClnAspAlaSerValSerIleValAspTyrTyrG 1369 Db 555 TGAGAACTTTAAAGTTTCAAATACCCAAGTGCCATAGTGGATTACTATG 166 1369	Oy 1409 HisSerserValilePheilePheCysPheLysLeuLeuTyPheMetGluLeuTrpL 1428	RESULT 6 US-10-085-198-29 ; Sequence 29, Application US/10085198 ; Publication No. US20040009907A1 ; Publication No. US20040009907A1 ; APPLICANT: Alsobrook et al. ; TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same	CURRENT APPLICATION NUMBER: US/10/085,198 CURRENT FILING DATE: 2002-02-25 PRIOR APPLICATION NUMBER: 60/271,646 PRIOR PILING DATE: 2001-02-26 PRIOR PILING DATE: 2001-03-16 PRIOR PLING DATE: 2001-03-16 PRIOR APPLICATION NUMBER: 60/271,981	; PRIOR FILING DATE: 2001-08-13 ; PRIOR APPLICATION NUMBER: 60/312,858 ; PRIOR FILING DATE: 2001-08-16 ; PRIOR APPLICATION NUMBER: 60/271,840 ; PRIOR FILING DATE: 2001-02-27 ; PRIOR APPLICATION NUMBER: 60/277,324 ; PRIOR FILING DATE: 2001-03-20 ; PRIOR FILING DATE: 60/286,096	PRIOR FILING DATE: 2001-04-21 PRIOR APPLICATION NUMBER: 60/299,695 PRIOR PILING DATE: 2001-06-20 PRIOR APPLICATION NUMBER: 60/315,614 PRIOR FILING DATE: 2001-08-29 PRIOR FILING DATE: 2001-02-28 PRIOR FILING DATE: 2001-02-28 PRIOR FILING DATE: 2001-02-28 Remaining Prior Application data removed - See File Wrapper or PALM.	; NUMBER OF SEQ ID NOS: 653 ; SOFTWARE: PatentIn Ver. 2.1 ; SEQ ID NO 29 . ; LENGTH: 6157 ; TYPE: DNA HOMO Sapiens US-10-085-198-29	Alignment Scores: 5.76e-144 Length: 6157 Pred. No.: 1542.50 Matches: 494 Score: 14.65 Conservative: 257 Best Local Similarity: 27.40\$ Mismatches: 555 Query Match: 20.99\$ Indels: 57 DB: 16	US-10-020-095-4 (1-1428) x US-10-085-198-29 (1-6157) QY S PROLEULEUThrAlaAlaHisLeuLeuCysValCysThrAlaAlaLeu 20

Db 2379 ATCACCA	Oy 644 AlaAsnLe :::	Qy 664 PheMetG	Db 2493 GCTTTCC	684	Db 2538 AGGCACCC	2598	Qy 716 SerileT	Db 2658 TCCATCA	Qy 736 ThrThrTl	91/7	2775	Qy 776 Aspalari	Db 2835 ACCTGCG		2886	Qy 808 LeuLeuVi	DD 2922 AIGIGIG	2982	839	3042	Oy 843 AspAlav Db 3102 GATCACG	Qy 863 SerileL	Db 3162 AGCGCAT	998 XO	3222	Cy 870 ASPASIA	873	Db 3342 CTGGGGG	Qy 874G
360	372 ValThrArgAlaAspGlyAsnGlnLeuThrLeuGluGluArgArgAsnAsnValValIle 391	1440 CTATCCTACCCGATGGCAGCCCAGCTGAGGGGGTGACGGTC 1481	ORGATT	MetGlualaValGlnivsIleAsnTvrThrValProGlnSerGlvThr	GCAGAGCTGACACCAAAGGATAACATCTACACCAGTGAAGTTGTGTCCCCAGCGTGGACTA	PheLysIleGluPheProlleLeuGluAspSerSerGluLeuGlnLeuLys	GTGGGGTTTGAAATCCCCTCCATCCCCACGTCAGCCCAGCACGTGTGGCTGGAAGCCAAG	445 AlaTyrPheLeuGlySerLysSerSerMerAlaVal 456 445 AlaTyrPheLeuGlySerLys	HisSerLeuPheLysSerProSerLysThrTyrlleGlnLeuLysThrArgAspGluAsn	1671 GGCAGCTGGTACTCCCCCAGCCAGTGCTACCTGCAGCTGCAGCCACCCTCCCACCA 1727	IleLysValGlySerProPheGluLeuValValSerGlyAsnLysArgLeuLysGlu		496 LeuSerTyrMetValValSerArgGlyGlnLeuValAlaValGlyLysGln 512 1700 Charachandachandachand :::	100000000000000000000000000000000000000	1848 ACCACCAGCAAGCAAGCAAGCGAGCGCCCTGCCTGGAAAACCGATTCGTTTAACA 1907		1908 CACCTITCTGAGACAGAGCCCCCACCAGCCCCAGAAGCTGAGGTCGACGTGTGTGT	514 SerThrMetPheSerLeuThrProGluAsnSerTrpThrProLysAlaCysVallleVal 533	TyrTyrIleGluAspAspGlyGluIleIleSerAspValLeuLysIleProValGlnLeu	TTCTACGTCAGGGAGAATGGAGAAGGGTCGCCGACAGCCTTCAGTTTGCAGTCGAGACC	554 ValPheLysanLyslleLysLeuTyTTrpSerLysValLysAlaGluProSerGluLys 573		574 ValSerLeuArgIleSerValThrGlnProAspSerIleValGlyIleValAlaValAsp 593	GTCGACCTGCGGATCAGGGCTGCAAGGGGCAGCTGTGTGTGTGTGCGTCGCCGCAGTTGAT	594 LYSSETVARIABILEMETABILABELEMINISTELLITEREGLENSINGIT 915 2199 AAGAGTGTCTACCTGCTCAGGTCTGGGTTCCGGCTGACTCCTGCCCAGGTTTCCAGGAA 2258	614 LeuGluLeuTyrAsnThrGly 620	2259 CIGGAAGAITAIGAIGITICIGAITCCITIGGCGIGICCAGGGAGGAIGGICCITITIGG 2318		2319 1936c1863c18aCG3cAcAcAACGACGCCGGCCCTCTCTGTTTCCCGGGCCTTGGGGC 2270 625 MetPheMetAsnSerPheAlaValPheGlnGluCysGlyLeuTrpValLeuThrAsp 643
è è	ò	원 등	<u>6</u> 6	3 8	6 G	ò	DP DP	છે ક	3 8	qq	ò	QQ	<u>ک</u> ج	3 8	du du	Š	qq	ે દ	3 8	연	ò	c C	8 8	g (음 경	δ	qq	⋩ .	8 8

	,	
_	644	snLeuThrLysAspTyrIleAspGlyValTyrAspAsn
	2439	::: gcaggacggtggcctctac
	664	lasnGluGlyHisIleValAspIleHisAspPheSerLeuGlySerSer 6
	2493	cacacaddagccrddrd
	684	ProHis
	9	AspThrAsnMetGlyTyrArgIleTyrGln-
	2598	ACACT
	716	SerileThrSerTrpValAlaThrGlyPheValIleSerGluAspLeuGlyLeuGlyLeu 735
	73	hrThrThrProValGluLeuGlnAlaPheGlnProPhePheIlePheLeuAsnLeuPro 75
	-	
	75	yrserVallleArgGlyGluGluPheAlaLeuGluIleThrIlePheAsnTyrLeuLys 77
	2775	CATCCGTGGGGAGCAGGTCAAGATC
	116	AspAlaThrGluValLysValIleIleGluLysSerAspLysPheAspIleLeu 793
•	2835	TACATGAAGCTCTCGGTTCCCAAGGGCATCCAGTTT
	794	ulleAsnAlaThrGlyHisGlnGl
•	2886	GTTGGGCATCCTGGCAAACGCCATG1
	808	rGluAspGlyAlaThrValLeuPhePro
	2922	cggggaggctgagcccaicngggrcgrrcrgrccrrcagcga
	828	
•	2982	тсвасвасатсясовсявай ссттясова в правод по ставет по сто
	839	842
	3042	GGGAGGTCCAGCAAACACCCTGAGGAGAATCACGCCGACAGGAGGGTCCCCATCGGGGTG 3101
	843	eLeuvallysAlaGluGlyIleGluLysSerTyrSe
	3102	TGATGGTTGAGGGGGAAGGAGTCCCCCGGGCGTA
•	863	rlleLeu
•	3162	 CGCATTCTTCTGTCCCAGTG
	998	LeuA
•	3222	Ö
_	870	AsnArgLeu
•	3282	 GATGCCCGTGTGGCCTTGTCTTCTGGGCCCCCAGGACACAGGAGGCATGATCGAGATCGTC 3341
_	873	873
•	3342	CTGGGGGGGCATCAGAACACCAGGTCATGGATCTCCACCAGCAAGATGGGAGAGCCCGTG 3401
	874	GlnSerThrLeuLysThrLeuSerPhe

195

585

645 235 705 255 765

273 825 291

```
HisSerLeuPheLysSerProSerLysThrTyrIleGlnLeuLysThrArgAspGluAsn 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          412 MetGlualavalGlnLyglleAsn---TyrThr-----ValProGlnSerGlyThr 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       328 ThrGluSerValThrGlyIleSerArgAsnValSerThrAsnValPhePheLysGlnHis 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PheSerPheAsnAspGluGluMetLysAsnValMetAspSerSerAsnGlyLeuSerGlu 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               372 ValThrArgAlaAspGlyAsnGlnLeuThrLeuGluGluArgArgAsnAsnValVallle
LysAlaLeuTyrLysProLysGlnGluValLysPheArglleValThrLeuPheSerAsp
                             TyrGlnSerPheGlnValSerGluTyrValLeuProLysPheGluValThrLeuGlnThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  256 TyrGlyLysProValLysGlyAsp-----ValThrLeuThrPheLeuProLeuSerPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              274 TrpGlyLysLys-----LysAsnIleThrLysThrPheLysIleAsnGlySerAlaAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           312 TyrLeuAspLeuSerSerPro-----GlyProValGluIleLeuThrThrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ------GCTGAGGGGGTGACGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 157 PheLysProTyrLysThrSerLeuAsnIleLeuIleLysAspProLysSerAsnLeuIle
                                                                                                                                                              177 GlnGlnTrpLeuSer---GlnGlnSerAspLeuGlyValIleSerLysThrPheGlnLeu
                                                                                                                                                                                            196 SerSerHisProlleLeuGlyAspTrpSerIleGlnValGlnValAsnAspGlnThrTyr
                                                                                                                                                                                                                                                                                                                                               886 TTCGACATCTGCGTGAGGACATG---------------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---ATCCCAGCGACGTCCCTGAGCACTTCCGGGCCAGGGTCAGCATCTGGGCCATGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               392 ThrValThrGlnArgAsnTyrThrGluTyrTrpSerGlySerAsnSerGlyAsnGlnLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1153 gcadadcrgacaccaaadgaraacarcracaccagrgaagrrgrgrcccagcgrgdacra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PhelysllegluPheProlleLeuGluAspSerSerGlu------LeuGlnLeuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        --SerSerMetAlaVal
                                                                                                                                                                                                                                                                                                                                                                                                        ProLeuTyrCysSerMetAsnSerLysHisLeuAsnGlyThrIleThrAlaLysTyrThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         348 AspTyrIleIleGluPhePheAspTyrThrVal-----------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ::::::
CTATCCTACCCGATGGCAGCCCA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 967 ACC---AGTGTGGACGGGAGCCAGCAG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          445 AlaTyrPheLeuGlySerLys-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1144 CAGATT-
                                                                                                                            466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   292
                                                                                                                                                                                                                                                                                                                                                                                                           236
                                                                                                                                                                                                                                                                                                                                                                                                                                                 904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 991
                                            g
                                                                                                                    음
                                                                                                                                                              ઠે
                                                                                                                                                                                                g
                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원
장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ठ
                                                                                    8
                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerAsnSerThrArgLeuSerPheGluThrLysArgIleSerValPheIleGlnThrAsp 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCAGGCCCCGGGT----TACTTGATTGCAGCTCCCTCTGTTTTTCGCGCGGGCGTG 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGGATAAAGGGACAATCAAA ---CTCAAGGTGCCCACGGGCCTCCGGGGCCAAGCG--- 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      81
                     APPLICANT: Alsobrook et al.
ITILE OF INVENTION: Proceins and Nucleic Acids Encoding Same
FILE REPERENCE: 21402-279
CURRENT APPLICATION NUMBER: US/10/085,198
CURRENT FILING DATE: 2002-02-25
FRIOR APPLICATION NUMBER: 60/271,646
FRIOR APPLICATION NUMBER: 60/271,646
FRIOR APPLICATION NUMBER: 60/271,646
FRIOR APPLICATION NUMBER: 60/311,981
FRIOR APPLICATION NUMBER: 60/311,981
FRIOR APPLICATION NUMBER: 60/311,981
FRIOR PILING DATE: 2001-08-13
FRIOR APPLICATION NUMBER: 60/271,324
FRIOR APPLICATION NUMBER: 60/277,324
FRIOR FILING DATE: 2001-08-20
FRIOR FILING DATE: 2001-08-20
FRIOR FILING DATE: 2001-08-29
FRIOR APPLICATION NUMBER: 60/215,405
FRIOR FILING DATE: 2001-08-29
FRIOR FILING DATE: 2001-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :::|||:::::::||| :::
cagctggtgcccagggtgag------ccgtggtggtggtgagagccagggagccatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41 AsnValThrileGlyValGluLeuLeuGluHisCysProSerGlnValThrValLysAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGGAAGTCACCATCATCTTT---AACTCTCCAAGGGAAGTCACGGTCCAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ------CTTCTGAAAGTGTGGGGCGGGGCTGGCAGGCGGAGAGGGGGCCCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ---ThrAlaAlaLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AlaValAlaProGlyProArgPheLeuValThrAlaProGlyIleIleArgProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 GluLeuLeuLysThrAlaSerAsnLeuThrValSerValLeuGluAlaGluGly---Val
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PheGlurysGlySerPhelysThrLeuThrLeuProSerLeuProLeuAsnSerAlaAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GluileTyrGluLeuArgValThrGlyArg-----ThrGlnAspGluIleLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6069
493
257
556
497
57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProLeuLeuThrAlaAlaHisLeuLeuCysValCys--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-020-095-4 (1-1428) x US-10-085-198-27 (1-6069)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.130-143
1539.50
41.60%
27.34%
20.95%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
CRGANISM: Homo sapiens
US-10-085-198-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match: DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
```

327

1101

1143

391

1152

411

1272

444

Qy 1254 ArgArgArgSerI	Qy 1263	1272	4642	Oy 1292 GlyargSerGlyM 	Glualail	DD 4/59 GAGAGCC 120 GAGAGCC 120 GAGAGCC 120 GAGAGCCC 120 GAGAGCCC 120 GAGAGCCCC 120 GAG	4813	Qy 1344 ValAsnIleProA	Cy 1364 IleValAspTyr	Db 4933 GTGTACGACTACT	1383	DD 4993 AGCCCACICGCCC	900055555555555555555555555555555555555	141	5113 GCGCCGATC	8 E-115	USSOUR O USS	; sequence 23, Application; publication No. US2004000; centebat intropagation.	APPLICANT: Alsobrook et : TITLE OF INVENTION: Prot	; FILE REFERENCE: 21402-27 ; CURRENT APPLICATION NUMB	NT FILING DATH APPLICATION 1	; PRIOR FILING DATE: 2001- ; PRIOR APPLICATION NUMBER	; PRIOR FILING DATE: 2001- ; PRIOR APPLICATION NUMBER			APPLICATION N	FILING DATE: APPLICATION N	APPLICATION N		, PRIOR APPLICATION NUMBER
ס י	CIILCAGAAAACCAGGAGGILAGGCICGAGGGGAGAGAGAGACACCAACTACCAGGAGAGAGAGGGGGGGG	CAAGGCTACCAGCGCCAGCTGACAGCGCCAGGATGGCTCCTACAGCGCGTTTGGG	979 AsnTyrAspProSerGlySerThrTrpLeuSerAlaPheValLeuArgCysPheLeuGlu 998		GlyHisglnLysSerAsnGlyGluPheTrpAspProGlyArgVallleHisSerGluLeu	3724 CAGCAGCAGCAGCCGATGGCTCCTTCCTGGCCGTGGGCAGGGTCCTGAACAAAGGACATC 3783	1039 GlnGlyGlyAsnLysSerProValThrLeuThrAlaTyrIleValThrSerLeuLeu 1057		ACAGGGCACACAGCAGAGAGAGAGAGGCICCACIGACAAAAGCGAGGGAGG	10./ Sefectiveserarggiviteseraspashiviterbeararateurisimityaaaeu 1090 	SerSerValGlySerProLysAlaLysGluAlaLeuAsnMetLeuThrTrpArgAlaGlu 111	3961 ACCCTGCTCCGCAGCCCCCGGCAGCCCCTGAGGCAAGCTCCGTAGCCTGGCCATG 4020	1117 GlnGluGlyGlyMetGlnPheTrpValSerSerGluSerLysLeuSerAspSerTrpGln 1136	cacccactggagcctgtca	1137 ProArgSerLeu 1140	4066 GIGGACAAGGGCACAITCITGAGCITCAGIGACAGGGICTCTCAGICAGIGGICTCTGGGCC 4125	1141 AspileGluValAlaAlaTyrAlaLeuLeuSerHisPheLeuGlnPheGlnThrSerGlu 1160	4126 GAGGIGGAAATGACAGCCTACGCCCTTCIGACCTACACTCIGCIGGGGGACGTGGCTGCC 4185	1161 GlylleProlleMetArgTrpLeuSerArgGlnArgAsnSerLeuGlyGlyPheAlaSer 1180	4186 gecergéchgroangrodendreceagladedalangrachtgodddenrereche 4245	ThrGlnAspThrThrValAlaLeuLysAlaLeuSerGluPheAlaAlaLeu 119	ACTCAGGACACCTGCGTGGCTCTGCAGGCCTTGGCTGAATATGCCATCTTGTCCTATGCT	Met 119	4306 GGAGGCATCAACCTCACTGTCTCCCTGGCCTCCACCTGGACTACCAGGAAACCTTC 4365	AsnThrGludrgThrAsnIleGlnValThrValThrGlyProSerSerProSer 121	GAGCTGCACAGGACCAACCAGAAGGTTCTGCAGACAGCAGC	ProLeualaValValGlnProMetalaValasnIleSerAlaAsnGlyPheGlyPheAla 12	GGGCTGTTTGTGAGTGCCAAGGGGGACGGCTGCTGC 446	1237 IleCysGinLeuAsnValValTyrAsnValLysAlaSerGlySerSerArg 1253 :::	*
કે ક	8 &	q _O	상 원	કે ક	8 &	ପୁ	& &	ò i	ຊ ເ	S 8	ò	qq	ò	qq	δ	qa	ò	qq	ò	qa	δλ	q	δλ	qa	8	a	δ :	a a	ò :	3 .

```
:::|||
| CTCCAGGAGCCTGAGGACGCCCGCCCCCATGCCTGCCTCC 4581
                                                                                                                                                                                                                                                                                                                                                                   AspleuAsnHisValAspleuAsnValCysThrSerPheSerGlyPro 1291
                                                                                                                                                                          -----AlaPheAspLeuAspValAlaValLys 1271
                                                                                                                                                                                                                                                             TCCCGAGGAGACTGGCCCCCAGCTGACGATGATGACCCAGCGGCCGAT 4641
                                                                                                                                                                                                                                                                                                                                                                                                                                       :::
GAATACAAG---GIGAIGCIGGAGGIGIGCACCAGGIGGCIGCAIGCA 4698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LysLeuAsnLeuTyrLeuAspSerVal---AsnGluThrGlnPheCys 1343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AlavalArgAsnPheLysvalSerAsnThrGlnAspAlaServalSer 1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TyrGluProArgArgGlnAlaValArgSerTyrAsnSerGluVal--- 1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyCysArgProCysGluAspGlyAlaSerGlySerHisHisHisSer 1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MetAlaLeuMetGluValAsnLeuLeuSerGlyPheMetValProSer 1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LeuSerGluThr----------VallysLysValGlu 1324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |||:::|||
|GETCTCCGGGAGTGCGTGGTGGGCAGACGTCGCGCTGCCAGTCTCC 4932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ---LysLeuSerSerCysAspLeuCysSerAspValGln----- 1394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  : al.
Steins and Nucleic Acids Encoding Same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -279: US/10/085,198
-202-02-25
-202-02-25
-202-02-26
-1-02-26
-1-03-16
-1-03-16
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-08-13
-1-0
.1leGlnAsnGlnGlu--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US/10085198
```

::: :::	LysLysAsnIleThrLysThrPheLysIleAsnGlySerAlaAsnPheSerPhe ::: ::	315 LeuSerSerPro	GTGGGGTTGGATGACCCCGTTGCAGAGGCAGCTGGTGGACATCCGGTACTCCAAGGTCGGTACTCCAAGGTCGGTACTCCAAGGTCGGGTACTCCAAGGTCGGGAAGCCGGGCTTGCGTACGTGGGGAAGCTGAAGGTCAAGCCGGGCCTACGTGGGGAAAGTGGAGCTATCCTACATACTACAGCCGAAGCTACGTGGGGAAAGTGAAGCTATCCTACATACTACAGCCAAGAAGTATCCTACATACCTACAGAAGAAGTATCCTACATACGTGGGGAAGCTAACCTACAGAAGTAAGAAGCTACCTAC	395 GlnargasnTyrThrGluTyrTrpSerGlySerAsnSerGlyAsnGlnLysNetGluAla 414 1276		1525 GGGAAGACCTATTTTCTGTGAAGTCCACATGTCCCTGCAACTTTACCCTGTACTAC 1584 499 MetValValSerArgGlyGlnLeuValAlaValGlyLysGln
4 6 6 6	3 6 8 6 8	8 8 8 8	8 6 8 6 8	666666	6 6 6 6	8 8 8 8 8
; PRIOR FILING DATE: 2001-02-28 ; Remaining Prior Application data removed - See File Wrapper or PALM. ; NUMBER OF SEQ ID NOS: 653 ; SOFTWARE: Patentin Ver. 2.1 ; SEQ ID NO 25 ; LENGTH: 6195 ; TYPE: DNA ; ORGANISM: Homo sapiens US-10-085-198-25	Alignment Scores: 1.2e-142	ProLeuleuThralaAlaHisLeuleuCysValCysThralaAlaLeu ProLeuleuThralaAlaHisLeuleuCysValCysThralaAlaLeu 22 cdgTactrcccgcrccTgcTcGTGCTGTGGGGGGGGGGGGGGGGGGGGGGGGGG	Db 136 GAGGAAGTCATCAGGGTGACCATCTTAACTCTCCAAGGGAAGTCAGGGTT 192 Cy 61 GluLeuLeuLySThrAlaSerAsnLeuThrValSerValLeuGluAlaGluGlyVal 79 E:: ::: ::: Db 193 CAGCTGGTGGCCCAGGTGAGCGGTGGTGCAGAGCCAGGAGCATC 240 Cy 80 PheGluLySThPheLys	OY 87ThrLeuThrLeuProSerLeuAsnSerAlaAspGluIleTyr 102	120 ThraygleuserPhedluThrLysArglleSerValPhelleGluThraspLysAlaLeu 120 ThraygleuserPhedluThrLysArglleSerValPhelleGluThraspLysAlaLeu 121	601 GTCAACGAGAAGCCTACATCCTGGACCCCGAGGCTCTCGGATGATAGAGTGG 180 LeuSerGlnGlnSerAspLeuGlyvalIleSerLysThrPheGlnLeuSerSerHis 181 1

868686868686868686868686868686868686								
1705 GAGACAGAGCCCCCACCAGAAGCTGAGGTCGACGTGTGTGT	::: ::: :::	2455 ÀGCTGGGTGAGGCCGTGGCCCTGTCCACGGGCTTÀGGCATCGCCGAG 2511 739 ProValGluLeuGlnAlaPheGlnProPhePheIlePheLeuAsnLeuProTyrSerVal 758						
8 6 8 6 8 6 8 6 8 6 8	6 8 6 8 6 8 6 8 6 8 6 8 6							

à	831 ProileThrValThrAlabeuSer	838
ą	2779 AACATCACGGCCAAAGCCCTTGCTTACGGACACACAAATTGCTGCCGGGATGGGAGGTC	GGGAGGTCC 2838
<u>ک</u>	839ProThrAlaSe	Aspalaval 845
ą	2839 AGCAAACACCCTGAGGAGAATCACGCCGACAGGAGGTCCCCATCGGGGTGGATCACGT	GATCACGTC 2898
à	846 ThrGlnMetlleLeuValLysAlaGluGlyIleGluLysSerTyrSerGlnSerlleLe	n 86
q	2899 AGGCGCAGTGTGGTTGAGGCGGAAGGAGTCCCCCGGGCGTACACCTA	C 29
⋩	865	865
q	2959 TICTGTCCCAGTGAGAGACCCACATCTCCACCCCCAACAACAATATGAGTTCCAGTATGTG	CAGTATGTG 3018
⋩	Ø.	872
ą	σ.	9
<i>≿</i> :	873 Leu	8 6
a	orgeconfigurations e	010
≿	1	Gln 874
q	3139 CATCAGAACACCAGGTCATGGATCTCCACCAGCAAGATGGGAGAGCCCGTGG	GCCAGIGCA 3198
<i>≵</i>	875 SerThrLeuLysThrLeuSerPhe	885
ą	3199 cacacdeccaadarccicicidegargaarrcagaacarrcrggarcag	TGGCGTGGT 3258
<i>≿</i> ;	883	885
q	3259 GGCCTTATCCAGGTTGGCCATGGTCCAGAGCCATCCAATGAGTCTGTCATTGTGGCCTGG	GTGGCCTGG 3318
<i></i>	883	882
ą	3319 ACCCTCCCGAGGCCACCAGGTCCAGTTCATTGGCTTTTCCACCGGCTGGG	GGCTCCATG 3378
<i>\</i> 2	882	885
ą	3379 GGTGAATTCCGAATCTGGAGGAAGATGGAGGTGGACGAGAGCTACAGCGAGGCCTTCAC	GCCTTCACC 3438
Ä	883SerPheProProAsnThrValThrGlySerGluArgValGln1leThrAla1leGly	AlaileGly 901
ą	3439 CTGGGGGTCCCACGCGCCCATCCCTGGGTCTGAGCGAGCCACCGCCTC	ATCATCGGG 3498
À	902 AspValLeuGlyProSerIleAsmGlyLeuAlaSerLeuIleArgMetProTyrGlyCys	TyrGlyCys 921
q	3499 GACGTCATGGGGCCAACCTGAACACCTCAACAACCTCTGGGGCTGCTGC	rrrddcrdr 3558
<i>\tau</i> :	9 1	LeuThrLys 941
g ,	, 0	0 0
ጵ ዳ	942 Lyselyselinewerkigetherintsspasnierlyselluysalaleusselkeremeekkigetheriyyy 	GINGIYIYE 961 CAAGGCTAC 3678
A	962 GlnArgGluLeuLeuTyrGlnArgGluAspGlySerPheSerAlaPheGl	AsnTyrAsp 981
ą	3679 CAGGGCCAGCTACAAGGGCCAGGATGGCTCCTACAGGGGGAGCGGATTTGGGGAGCGGAA	GAGCGGGAC 3738
<i>*</i> 2	982 ProSerGlySerThrTrpLeuSerAlaPheValLeuArgCysPheLeuGluAlaAspPro	100
q	3739 gcaicededadargiedecicacaechirierceisaagrecricesaca	379
<u> </u>	1002 TyrileAspileAspGlnAsnValLeuHisArgThrTyrThrTrpLeuLysGlyHisGln ::	GlyHisGln 1021 CAGCAGCAG 3858
3		,

4 988	4948	Oy 1347 ProAlaValArgAsnPheLysValSerAsn	Qy 1367 TyrTyrGluProArgArgGlnAlaValArg	Qy 1383LysLeuSerSerCysAspLeuCys 	Qy 1395GlyCysArgProCysGluAspGlyAla	RESULT 9 US-10-096-625-199 ; Sequence 199, Application US/10096625	; PUDLICATION NO. USZUG40068USSAI ; GENERAL INFORMATION: ; APPLICANT: Shimkets, Richard A ; APPLICANT: Taupier Jr. Kaymond J APPLICANT: Hangler Jr. Kaymond J	APPLICANT: Zerhusen, Bryan D ; APPLICANT: Mezes, Peter S ; APPLICANT: Rastelli, Luca ; APPLICANT: Malyankar, Uriel M	; APPLICANT: Grosse, William M ; APPLICANT: Alsobrook II, John P ; APPLICANT: Lepley, Denise M ; APPLICANT: Sovtek, Kimberly Ann	Li, Li Edinger, Shlomit	; APPLICANT: Gerrach, varent ; APPLICANT: Bilerman, Karen ; APPLICANT: MacDougall, John R	APPLICANT: Gunther, Erik APPLICANT: Millet, Isabelle FAPPLICANT: Scone, David	; APFLICANT: SMALTNSON, Glenica ; APPLICANT: J1, Welshen ; TITLE OF INVENTION: No. US20040068095Alel	; TITLE OF INVENTION: Methods Of Using The ; FILE REFERENCE: 21402-141 CIP ; CURRENT APPLICATION NUMBER: US/10/096,625 ; CURRENT FILING DATE: 2002-03-13	; FRIOR APPLICATION NUMBER: 09/972,211 ; PRIOR FILING DATE: 2001-10-05 ; PRIOR APPLICATION NUMBER: 60/238,325 ; PRIOR FILING DATE: 2000-10-05	PRIOR APPLICATION NUMBER: 60/238,323 ; PRIOR FILING DATE: 2000-10-05 ; PRIOR APPLICATION NUMBER: 60/238,400	; PRIOR FILING DATE: 2000-10-06 ; PRIOR APPLICATION NUMBER: 60/238,397 ; PRIOR FILING DATE: 2000-10-06	; PRIOR APPLICATION NUMBER: 60/238,401 ; PRIOR FILING DATE: 2000-10-06 perior application numbers 60/238,379	FRIOR FILING DATE: 2000-10-06 PRIOR APPLICATION NUMBER: 60/238,402 PRIOR FILING DATE: 2000-10-06	; PRIOR APPLICATION NUMBER: 30/238,384 ; PRIOR FILING DATE: 2000-10-06
1022 LysserAsnGlyGluPheTrpAspProGlyArgValIleHisSerGluLeuGlnGlyGly 1041	1042 AsniysSerProvalThrLeuThrAlaTyrIleValThrSerLeuLeuGlyTyr 1059 	1060 ArgLysTyrGlnProAsnIleAspValGlnGluSexIleHisPheLeuGluSerGluPhe 1079 :::::::	SerArgGlylleSerAspAsnTyrThrLeuAlaLeulleThrTyrAlaLeuSerSerVal	GlySerProbysalaLysGlualaLeuAsnMetLeuThrTrpargalaGluGluGluGly 111	GlyMetGlnPheTrpValSerSerGluSerLysLeuSerAspSerTrpGlnProArg	GGGGICACCCACIGGACCAGCCIGICAAAIICCIGGGACGIGGACAAG	4201 GGCACATICTTGAGCTTCAGGGGTCTCTCTGAGTCAGGGTCTCGGCCGAGGTGGAA 4260 1144 ValalaAlaTyrAlaLeuLeuSerHisPheLeuGlnPheGlnThrSerGluGlyIlePro 1163 1:: :::::		1184 ThrThrValhlaLeuLysAlaLeuSerGluPheAlaAlaLeu1197 	MetAsnThrGlu	4441 AACCTCACTGTCCCTGGCCTCCACCAACCTGGACTACCAGGAAACCTTCGAGCTGGAC 4500	1202 ArgThrAsnIleGlnValThrValThrGlyProSerSerProSerProLeuAla 1219 :::	1220 ValValGlnProMetAlaValAsnIleSerAlaAsnGlyPheGlyPheAlaIleCysGln 1239	1240 LeudsnVallyalTyrAsnValLysAlaSerGlySerSerArgArgArgArg 1256			4717 GGTTCCCGAGGAGACTGGCCCCCAGCTGACGATGACCCAGCGGCCGATCAGCATCAC 4776 1275 AspAspLeuAsnHisValAspLeuAsnValCysThrSerPheSerGlyProGlyArgSer 1294	7 CAGGAATACAAGGIGATGCTGGAGGTGTGCACCAGGTGGAGGTCTCC	1295 GlyMetAlaLeumetGluValAsnLeuLeuSerGlyFhemetValProSerGluAlalle 1314	SerLeuSerGluThrValLysLysValGluTyrAspHis
S da	cy op	දු දු	ò 8	8 8 8	ò i	3 8	8 8 8	7 A	λo do	ò	q	à g	λ d	\$ 6 6	& £	i & i	8 8	3 40	\$ 60 60	ò

```
| 4888 ACCTOMATION CONTRICTORING AND ACCTOMATION ASSET ACCTOMATION
```

```
1488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1411 CTA-----AACGGCCCCTTGAA 1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       364 LeuAsnPheThrAlaThrValLysValThrArgAlaAspGlyAsnGlnLeuThrLeuGlu 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       406
                                                                                                                                                                                                                                                                                             855
                                                                                                                                                                                                                                                                                                                                                                                                                           975
                                                                                                                                                                                                                                                                                                                                                                                                                                                            343
                                                                                                                              261
                                                                                                                                                             786
                                                                                                                                                                                              281
                                                                                                                                                                                                                             822
                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                            ------GlyProValGluile 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       439 SerGluleuGlnleuLysAlaTyrPheLeuGlySerLysSerSerMetAlaValHisSer
                                                                                                                                                                                                                                                                                  490 AsnLysArgLeuLysGluLeuSerTyrMetValValSerArgGlyGlnLeuValAlaVal
                    GGCAAGACCTTTGGTACTTTCAGTGTGGAGAAATATGTGCTTTCTCCATTTCTCCTTTTA
                                                                                   242 AsnSerLysHisLeuAsnGlyThrIleThrAlaLysTyrThrTyrGlyLysProValLys
                                                                                                                                                  GTGCAGGAATCTTTCTTAGTAAAATTTGTTGTAGGTACACCTATGGAAAGCCCATGCTA
                                                                                                                                                                                                                                                                                                                                                    916 ccigiogoacaigoccaccitigaccicaligoaraigcoiacagccaicaaaicaalait
                                                                                                                                                                                                                                                                                                                                                                                                                                                            324 LeuThringungluSerValThrGlyIleSerArgAsnValSerThrAsnValPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        344 PheLysGlnHisAspTyrIleIleGluPhePheAspTyrThrThrValLeuLysProSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               394 ThrGlnArgAsn-------TyrThrGluTyrTrpSerGlySerAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       427 ThrpheLysileGlu-------PheProlleLeuGluAspSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----SerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----SerThrMetPheSerLeu
                                                                 ------ValLeuProLysPheGluValThrLeuGlnThrProLeuTyrCysSerMet
                                                                                                                                                                                              GlyaspvalThrLeuThrPheLeuProLeuSerPheTrpGlyLysLysLysAsnIleThr
                                                                                                                                                                                                                               degecadideaegraterereret-----------------------
                                                                                                                                                                                                                                                            282 LysThrPheLysIleAsnGlySerAlaAsnPheSerPheAsnAspGluGluMetLysAsn
                                                                                                                                                                                                                                                                                                                               302 ValMetAspSerSerAsnGlyLeuSerGluTyrLeuAsp------LeuSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1036 ATTICICCACAAATGGGATCAATGACCTTTGAAGACACCAGCAATTTTTACCATCCAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        384 GluArgArgAsnAsnValValIle-----ThrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SerGlyAsnGlnLysMetGluAlaValGlnLysIleAsnTyrThrValProGlnSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ------GTTTCTCGAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |||::::::|||
1291 AAGTITCAAATGGAAGACTIAGIATATAATCCGGAACAAGTGCCACGTIACTACCAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuPhelysSerProSerLysThrTyrIleGlnLeuLysThrArgAspGluAsnIleLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1156 AACCATCTAGTGTTTCTGGTGATTTATGGCACAAATGGAACCTTCAACCAGACCCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       479 ValGlySerProPheGluLeuValVal----------
   GlnThrTyrTyrGlnSerPheGlnValSerGluTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       510 GlyLysGlnAsn------
                                                                                                                                                                                                                                                                                                                                                                                               318 Pro-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1276
                                                                                                                                                                                                                                787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          459
                                  607
                                                                                                                                                                  727
                                                                                                                                                                                                                                                                                                  823
                                                            8 8
                                                                                                                         ठे
                                                                                                                                                         S
                                                                                                                                                                                              à
                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                       \dot{\delta}
                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                       상염
                                                                                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                දු දු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                중 염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SerAsnLeulleGlnGlnTrpLeuSerGlnGlnSerAspLeuGlyVallleSerLysThr 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PheGlnLeuSerSerHisProlleLeuGlyAspTrpSerIleGlnValGlnValAsnAsp 212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IleLeuPheSerAsnSerThrArgLeuSerPheGluThrLysArgIleSerValPheIle 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Arcagerrireaggagaagaaaaaaggrreraarreagaggcagggaacggcaccrrrera 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlnThrAspLysAlaLeuTyrLysProLysGlnGluValLysPheArgileValThrLeu 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PheSerAspPheLysProTyrLysThrSerLeuAsnIleLeu---IleLysAspProLys 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          54 SerGlnValThrValLysAlaGluLeuLeuLysThrAlaSerAsnLeuThrValSerVal 73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LeuGluAlaGluGlyValPheGluLysGlySerPheLysThrLeuThrLeuProSerLeu 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ||||||||::::::||||
TTGGCCCTATCACCAGCCATTGCAGAAGAACTTCCAAACTACCTGGTGACATTACCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuAlaValAlaProGly------ProArgPheLeuValThrAlaProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           35 IlelleArg---ProGlyGlyAsnValThrIleGlyValGluLeuLeuGluHisCysPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .:::::
CGGCTAAAITICCCC-----TCCGTICAGAAGGITIGITIGAGCCTGAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGIACAGIGAIGITAAAIITCACGGITACICIGGAGACCAAGGACAAGACCAGAAGIIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProLeuAsnSerAlaAspGluIleTyrGluLeuArgValThrGlyArgThrGlnAspGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Agcalacagarriecacacacidecresaaragraccreagcaagcargecrerec
                                                                                                                                                                                                                                                                                                                                                                                                 4492
431
273
571
315
                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-020-095-4 (1-1428) x US-10-096-625-199 (1-4492)
PRIOR APPLICATION NUMBER: 60/238,373
PRIOR FILING DATE: 2000-10-06
PRIOR PILING DATE: 2000-10-06
PRIOR APPLICATION NUMBER: 60/238,382
PRIOR FILING DATE: 2000-10-06
PRIOR APPLICATION NUMBER: 60/256,880
PRIOR PILING DATE: 2001-03-14
PRIOR PRIING DATE: 2001-03-14
PRIOR PRIING DATE: 2001-03-14
PRIOR FILING DATE: 201-03-14
                                                                                                                                                                                                                                                                                                                                                                                          2.64e-134
1444.50
44.28%
27.11%
                                                                                                                                                                                                                                                                   TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
                                                                                                                                                                                                                                                                                                                                     .. (4374)
                                                                                                                                                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                  ; NAME/KEY: CDS
; LOCATION: (1)
US-10-096-625-199
                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          493
```

ò q 중 점

Б

ઠે ద

ठे

8 & B &

ठे 8 8 g

\(\frac{1}{2} \)

ò

2530	2926 [GGGAACATGGTCTTGTTTGCTCCCATCAT 943 LysGlnLeuThkrapAsnleuLysGluLysAl 2986 GGGCTGCTGGAGGAGGAGGAGGATCAGGTCTCGGGG 963 ArgGluLeuTyrGlnArgGluAsGLyGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
	626	719 SerTrpValAlaThrGlyPheValIleSerGluAspLeuGlyLeuGlyLeuThrThrThr 738 2293 GAGTGGAGGGGTGAGTTTCGCACTTCAGAGGTTCGGGTTTCACCCALT 739 ProValGluLeuGlnAlaPheGlnProPhePheIlePheLeuAsnLeuProTyrSerVal 758 [
8 6 8 6 8 6 8 6 8 6 8 8	8 4 8 4 8 4 8 4 8 8 8 8 8 8 8 8 8 8 8 8	8 8 8 8 8 8 8 8

/allleHisSerGluLeuGlnGlyGlyAsn 1042 | SerLeulleArgMetProTyrGlyCysGly 922 | IleTyrIleLeuAspTyrLeuThrLysLys 942 |||::: ||||||||| 3CAGTGGGTTTCCTGGAAATAGGGTACCAG 3045 erPheSerAlaPheGlyAsnTyrAspPro 982 LeuArgCysPheLeuGluAlaAspProTyr 1002 |||::: |||| 3225 CAGCTGCATTGCTGGAAAAGGAT 3345 AGGGGTTTGTTCCCCAAAGGGCCGGAGT 2691 JeuGlnSerThrLeuLysThrLeuSerPhe 882 ACAAAATGCTTTGGCCAAGCTCAGAAATTC 3165 hriyrihrirpleulysqlyHisqlnLys 1022 AlThrSerLeuLeuGlyTyrArgLysTyr 1062 isPheleuGluSerGluPheSerArgGly 1082 hriyralaLeuserSerValGlySerPro 1102 scriacarrrciccrescressaars 3462 HILLAACAGGCTATCATCTCAGGAGAATCC 3522 erAspSer----Trp---GlnProArg 1138 |||||||::: TGTTGGCCCAGCTTACCAAGCCCAGCCTG 3642 GICTCIGIGCIGAIGACGCAAAAACCCAC 2571 |||| | ACATTAACTTTACTATTAGTACAAAGATT 2631 |||||||::: |CTGAGGGAGTCCTGGTGGAGAAGACACAC 2751 hrTrpArgAlaGluGlnGluGlyGlyMet 1121 euleuSerHis------Phe 1153 31uileProlleThrValThrAlaLeu--- 837 -----SerProThrAlaSer 842 MagluglyllegluLysSerTyrSerGln 862 3luArgValGlnIleThrAlaIleGlyAsp 902 laLeuSerPheMetArgGlnGlyTyrGln 962

```
FILE REFERENCE: 37481-3323B
                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                    Alignment Scores:
                                                                                                                                                                                                             4576
                                                                                                                                                                                                                                                              ; ORGANISM: ...
US-10-608-397-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         186
                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match:
DB:
                                                                                                                                                                                                             LENGTH:
                                                                                                                                                                                                                                                                                                                                           No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 7, Application US/10608197
Publication No. US20040067512A1
Publication No. US20040067512A1
Publication No. US20040067512A1
APPLICANT: Kenneth David Becker
APPLICANT: Gonul Velicelebi
APPLICANT: Xin Wang
APPLICANT: Lars Bertram
APPLICANT: Lars Bertram
APPLICANT: Applicant Of Sequence APPLICANT: APPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1370
                                                            3702
                                                                                                                                                                                        PheAla----AlaLeuMetAsnThrGluArgThrAsnIleGlnValThrValThr--- 1210
                                                                                                                                                                                                                                                                                                                    3882
                                                                                                                                                                                                                                                                                                                                                                                                                                                GlnLeuAsnValValTyrAsnValLysAlaSerGlySerSerArgArgArgArgSerIle 1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1382
                                                                                                                              3883 CTGCCCAATGTCCCTGGAATGTACACGTTGGAGGCCTCAGGCCAGGCTGTGTGTTGTG 3942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1336 GATGAACAGGCAACAATTCAGTATTCTGATCCCTGTGAATGAGGATAGGAGCTGGAAACT 4395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LysLeuSerSerCysAspLeuCysSerAspValGlnGlyCysArgProCysGluAspGly 1402
                      LeuGlnPheGlnThrSerGluGlyIleProlleMetArgTrpLeuSerArgGlnArgAsn 1173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlnAsnGlnGluAlaPheAspLeuAspValAlaValLys------GluAsnLys 1274
                                                                                                                                                                                                                   3823 AATTTCCAGCGCACATTCAACATACAGTCAGTTAACAGATTGGTATTTCAGCAGATACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1275 AsoAspLeuAsnHisValAspLeuAsnValCysThrSerPheSerGlyPro---GlyArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTICACCICGAICCITGACTCICACTAITCACAGTIAIGIGGGGAGCCGIAGCICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1156 AATCAGTTACTTCTCCAGCAACCCCTGGTGAAAGATGAATTTGGAACTGACACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AsaLeuTyrLeuAspSerValAsnGluThrGlnPheCysValAsnIleProAlaValArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerLeuGlyGlyPheAlaSerThrGlnAspThrThrValAlaLeuLysAlaLeuSerGlu
                                                                                                                                                                                                                                                                                                                                                             ------ProMetAlaValAsnIleSerAlaAsnGlyPheGlyPheAlaIleCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SerGlyMetAlaLeuMetGluValAsnLeuLeuSerGlyPhe-----MetValProSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GluAlaIleSerLeuSerGlu---ThrValLysLysValGluTyrAspHisGlyLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AACATTTACTTGGATGAGCTCATTAAGAACACTCAGACTTACACCTTCACCATCAGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1351 AsnPheLysValSerAsnThrGlnAspAlaSerValSerIleValAspTyrTyrGluPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   --GluVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               caarragrecreréréacarracregagegregaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1403 AlaSerGlySerHisHisHisSerSerVal 1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGACGGTGTTGAGATACAATATTCTCCCTCCC--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ArgargGlnAlaValArgSerTyrAsnSer----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -10-608-397-7
                                                                                                                                                                                                                                   3763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1259
                                                               3643
                                                                                                       1174
                                                                                                                                                  3703
                                                                                                                                                                                          1194
                                                                                                                                                                                                                                                                              1211
                                                                                                                                                                                                                                                                                                                                                                 1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4396
                                                                                                                                                                                                                                                                                                                                                                                                 g &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              임
                                                   qq
                                                                                            ò
                                                                                                                                  D,
                                                                                                                                                                               ò
                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
```

```
166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       206 IleGinValGinValAsnAsp-----GinThrTyrTyrGinSerPheGinValSerGiu 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           145 grececrecrecrecaeaer---gagaceaergagaggecrerererererererer 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       83
                                                                                                                                                                                                                                                                                                                                                                                                                                                             37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ThrolyArgThrolnAspGlulleLeuPheSerAsnSerThrArgLeuSerPheGluThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTGGCCTCAAGGAATTTTCTTTTCCCTTTCAGAGCCCTTCCAGGGCTCCTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CysProSerGlnValThrValLysAlaGluLeuLeuLysThrAlaSerAsnLeuThrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ---ServalieuGluAlaGluGly---ValPheGluLysGlySerPheLysThrLeuThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -----GCTGTCCCAAAGTCTTCATCCAATGAGGAGGTAATGTTCCTCACTGTCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             364 AAAGGACCAACCCAAGAA-----TTTAAGAAGCGGACCACAGTGATGGTTAAGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             147 LyspheArgIleValThrLeuPheSerAspPheLysProTyrLysThrSerLeuAsnIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 224 TyrvalLeuProLysPheGluValThrLeuGlnThrProLeuTyrCysSerMetAsnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuLeuCysValCysThrAlaAlaLeuAlaValAlaProGlyProArgPheLeuValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     32 AlaProGlyIleIleArgProGlyGlyAsnValThrIleGlyValGluLeuLeuGluHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGAATGAGACAGTGACTGTAAGTGCTTCCTTGGAGTCTGTCAGGGGAAACAGGAGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LysargileSerValPheileGlnThraspLysAlaLeuTyrLysProLysGlnGluVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Leu---IleLysAspProLysSerAsnLeuIleGlnGlnTrpLeuSerGlnGlnSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTATACATTCAGGATCCCAAAGGAAATCGCATCGCACAATGGCAGAGTTTCCAGTTAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LeuGlyValIleSerLysThrPheGlnLeuSerSerHisProIleLeuGlyAspTrpSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGGTGGTACAGAAAATCAGGTGGAAGACAGAGACA---CCTTTCACCGTGGAGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LeuProSerLeuProLeuAsnSerAlaAspGlu-----IleTyrGluLeuArgVal
                                                                                                                                                                                                                                                                                     4576
453
264
551
284
                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-020-095-4 (1-1428) x US-10-608-397-7 (1-4576)
CURRENT APPLICATION NUMBER: US/10/608,397
CURRENT FILING DATE: 2003-06-26
PRIOR APPLICATION NUMBER: 10/292,081
PRIOR FILING DATE: 2002-11-08
PRIOR PILING DATE: 2001-11-09
NUMBER OF SEQ ID NOS: 15
SEQ ID NO 7
                                                                                                                                                                                                                                                                                       6.15e-134
1441.00
46.20%
29.19%
19.61%
                                                                                                                                                                                             TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

Db 1690 GACGTGATTGGGGATTCTGCAAATATGA	561	1750	OY SEL INTEINFTCARDETILEVALGIYLLEV DD 1810 GCTCCTCAGTCTGCGCCCTCCC		1867 CCTGATGCTGAGCTCTC	Qy 603	Oy 617 TyrAsnThrGlyTyrTyrLeuGlyMe	1987	Qy 632 ValPheGlnGluCysGlyLeuTrpValLe :::::: Db 2047 TTCCTAGAGGACATGGGCTTAAAGGCAT	Qy 652 AspGlyValTyrAspAsnAlaGlu	Db 2107 TGTCCACAGCTTCAACAGTATGAAATGCA	Qy 661 AlaGluArgPheMetGluGluAsnGluGl	2167 GAGTCAGATGTAÀTGGGAAGAGG	Oy 681 GlySerSerProHisValAx	TURK 868	2269	Qy 718 ThrSerTrpValAlaThrGlyPheValIl	2329		2389	Oy 758 VAIIIEARGGIYGIUGIUBhEAIALEUGI 	Qy 778 ThrGluValLysValllelleGluLysSe	Db 2506 ATCCGGGTCAGTGTGCAGCTGGAAGCCTC	Qy 798 GluIleAsnAlaTh	Db 2566 GAACAAGGGCCTCACTGCATCTGTGCAAA	813 GluAspGlyA	2605	OY 833 INTVALIDENCET	Oy 842SerAspAlaValTh	
		_ `	- u	_		~ н			→ H	_	-	~	П	~ н			J	•	J	····· '	П	J	1	9	1		_ `	<i>у</i> ц	3	
LysHisLeuAsnGlyThrIleThrAlaLysTyrThrTyrGlyLysProValLysGlyAsp	//Z GAAGAGGTGTGTGTGTGTGTGTGGGCCTTTATGGGAAGGCCTGTCCCTGGACAT B31 264 ValThrLeuThrPheLeuProLeu	832 :::::: 832 GTGACTGTGAGCATTTGCAGAAAGTATAGTGACGCTTCCGACTGCCACGGTGAAGATTCA 891	272SerPheTrpGlyLys 276		2.// LybysasilleintlysilirneurysileasnGlyseralaasbrrbeserrneashSp 296 2.// Lybysasilleintlysiliris:: 952 GTAAAAACCAAGGTCTTCCAGCTGAAGAGGAAGGAG 987	297 GludluMetLysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSer 316	988 TAIGAAAIGAAA	GGAAGGCAGTCCAGAATCACAAGAACCATA		TITGTGAAAGTGGACTCACACTTTCGACAGGGAAIT	334 GIEFREFRASDIYTINTVALLEULYSFIOSETLEUASRFREINTALAINIVAILYS 371 1132 CCCTTTTTGGG	ValThrArgAlaAspGlyAsnGlnLeuThrLeuGluGluArgArgAsnValValIle		ThrValThrGlnArgAsnTyrThrGluTyrTrpSerG	1195 ITCATCAGAGGAAATGAAGCAAACTATTACTCCAATGCTACCACGGATGAG 1245	MetGluAlaValGlnLysIleAsnTyrThrValProGlnSerGlyThrPhe 428	CATGGCCTTGTACAGTTCTCTATCAACACCACCAATGTTATGGGTACCTCTTTACTGTT	429 Lyg1leGluPhePro	458	 366 GAAGAGCACATCACACTGCTIAT1389	459 LeuPhelysSerProSerLysThrTyrlleGlnLeuLysThrArgAspGluAsnIleLys 478	1390 CTIGTGTTCTCCCCAAGCAAGGTTTGTCCACCTTGAGCCCATGTCTCATGAACTACCC 1449	479 ValGlySerArg 492 479 ValGlySerArg 492 1.60 momoocompananananananananananananananananananan		*95 Leunyschuteuser	LysGlnAsnSerThrMetPheSerLeuThr	1570 ACTCATGGACTGCTTGTGAAGCAGGAAGACATGAAGGGCCATTTTTCCATCTCAATCCT 1629	521 ProGluAsnSerTrpThrProLysAlaCysVallleValTyrTyrIleGluAspAspGly 540	1630 GTGAAGTCAGACATTGCTCCTGTCGCTCGGTTGCTCATCTATGTGTTTTTACCTACC	0.479-1-0.471-1-0.00 4-7-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
8 8	8 8	qq	ò	q n ::	g 4	ò	g ò	qq	8	요 :	à d	ò	qq	ò	qq	8	QQ ,	දු පු	οy	qq	. & ·	g (ò f	a è	à g	\ \dols	qq	δ	a ò	7

ValAlaValAspLysSerValAsnLeuMet--- 599 ||||::: GATGTTGAAAATTGTCTGGCCAACAAGGTGGAT 1749 STATCAAGTACAAATGAAAAGGATATGTACAGC 2046 IleSerGluAspleuGlyLeuGlyLeuThrThr 737
:::||||||||||
CTGTCTGAAGATGCTGGACTTGGTATCTCTTCC 2388 3lulleThrilePheAsnTyrLeuLysAspAla 777
::: ||||:: ||||||||||
AAGGCCACGGTCCTAAACTACCTTCCCAAATGC 2505 |||::: |CAGCCTCACACGCCCACTGCGAGTCACAGCG 1809 GITIACAACCIGCIACCAGAAAAGGACCICACI 1926 BACAATGAAGACTGCATCATCGTCATAATGTC 1986 |||::::::: |TCACCAACTCAAAGATTCGTAAAACCCAAAATG 2106 CATGGACCTGAAGGTCTACGTGTAGGTTTTTAT 2166 AACGGGCGGCAA----- 2604 STAACCCCAAAGICATIAGGAAAIGIGAAITIC 2652 ProSerGluLysValSerLeuArgIleSerVal 580 ThrMetGluAsnValValHisGluLeuGluLeu 616 LeuThrAspAlaAsnLeuThrLysAspTyrIle 651 31yHisIleValAspIleHisAspPheSerLeu 680 ProPhePheleuAsnLeuProTyrSer 757 lleArgProThrHisLeuGlyGluIleProIle 832 MetPheMetAsnSer------PheAla 631 SerAspLysPheAspIleLeuMetThrSerSer 797 ThrGlyHisGlnGlnThrLeuLeuValProSer 812 ThrGlnMetIleLeuValLysAlaGluGlyIle 856 ::: :::|||||||::: :::||| 3CACGCCTGGTGCATGTTGAAGAG-----

Oy 1196 AlaLeuMetAsnThrGluArgThrAsnIleGlnValThrValThrGlyProSerSerPro 1215	1ypheGlypheAlaileCys 123: 	CTCTGCCTCAAACTTGTGAT heSexGlyProGly TCAGTTACAGGGGGCGC		Oy 1329 LysLeuAsnLeuTyrLeuAspSerValAsnGluThrGlnPheCysValAsnIleProAla 1348 ::: :::	Oy 1169 GluProArgArgGlnAlaValArgSerTyrAsnSer 1380	PUBLICATION NO. USZUGOSTIEZZUZAL APPLICANT: Kenneth David Becker APPLICANT: Gonul Velicelebi APPLICANT: Xin Wang APPLICANT: Randolph E. Tanzi APPLICANT: Aleiser J. Saunders APPLICANT: Aleister J. Saunders TITLE OF INVENTION: SINGLE NUCLEOFIDE POLYMORPHISMS AND MUTATIONS ON ALPHA-2-M	FILE REPRENCY 3481-3323 FILE REPRENCY WINNER: US/10/292,081A CURRENT APPLICATION NUMBER: US/10/292,081A FRIOR PRILNG DATE: 2002-11-08 NUMBER OF SEQ ID NOS: 15 SOFTWARE: FastSEQ for Windows Version 4.0 LENGTH: 4576 TIRED DNA TORE DNA CORANISM: Homo sapiens	Alignment Scores: 6.15e-134 Length: 4576 Score: 1441.00 Matches: 453
Db 2713 CCTGAACAGGAAAGACACAGTCATCAAGCCTCTGTTGGTTG	897 IlëThralaIleGlyAspValLeuGlyProSerIleAsnGlyLeuAlaSerLeuIleArg ::::::::::::::::::::::::::::::::::::	ABSTYLLEUTHILGGLIGIGGAGAGGAGAGATATIGGLICITITGGLIGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGA	3124 995 4916	1015 ThrIrpLeuLysGlyHisGlnLysSerAsnGlyGluPheTrpAspProGlyArgVallle 1015 ThrIrpLeuLysGlyHisGlnLysSerAsnGlyGluPheTrpAspProGlyArgVallle 1244 ATATGGCTCTCCCAGAGGCAGAAGGACAATGGCTGTTTCAGGACTCACTGGTCACTGCTCACTGTTCAGGACTCATGGTACTACTGTTCAGGACTCATGTATTATATATA	1055 SerLeuleuGlyTyrArglysTyrGlnProAsnileAspValGlnGluSerileHisPhe 11055 SerLeuleuGlyTyrArglysTyrGlnProAsnileAspValGlnGluSerileHisPhe 11075 LeuGluSerGluPheSerArgGlyIleSerAspAsnTyrThr	Db 3424 CTGGAGTCAGCTGGAAGACAGAAGGAGGGACCATGGCAGCCATGIAIAIACC 3480 Oy 1089 LeualaLeuIleThrTyralaLeuSerSerValGlySerProLysAlaLysGluala 1107 Db 3481 AAAGCACTGCTGTGTTTTGCCTGGCAGGTAACCAGGAAGAAGAAGAAGA 3540 Oy 1108 LeuasnMetLeuThrTrpArgalaGluGluGlyGlyMetGlnPheTrp 1124 Db 3541 CTCAAGTCACTTAATGAGGAAGCTGTGAAGAACAACTGTCCATTGGGAGGCCCT 3600	1125 3601 1143 3661 1160 3718	Qy 1176 GlyGlyPheAlaSerThrGlnAspThrThrValAlaLeuLysAlaLeuSerGluPheAla 1195

AND MUTATIONS ON ALPHA-2-MACROGLOF

10-24	12 LeuleuCysvalCysThralan 85 CTCTTGGTCTCCTGCCCACAG 32 AlabroGlyllelleArgProG 145 GTCCCTCCTGCTCCACACT 52 CysProSerGlnValThrVall 202 CTGAATGAGACAGTGACTGTAA 72SerValleuGluAlaGluG 107 ThrGlyArgThrGlnAspGluI 107 ThrGlyArgThrGlnAspGluI 107 ThrGlyArgThrGlThaspGluI 107 ThrGlyArgThrGlTCCCAAGG 10 LeuleroSerLeuproLeuAsnS 10GCTGTCCCAAGGTCTT 107 ThrGlyArgThrGlnAspGluI 107 ThrGlyArgThrGlTCTCCAAGG 115 GAGGACAGTCTGGTCTTTGTC 12 LysArgIleSerValPhrIIC 147 LysPheArgIleValThrCup 16 LeulerolyMalleSerLysThrE 186 LeulerolyMalleSerLysThrIIC 224 TyrValLeuproLysBheGluV 224 TyrValLeuproLysBheGluV 225 GGGGCCTCAAGCAGTTTGAAG 226 GGGGTACAGAGTTTGAAG 227 TyrGTTCTTCTCCCAAGTTTGAAG 227 TyrGTTCTTCTGTGAGAAATTCA 237 GAAGAGATGAAAATTCA 237 LysHisLeuthrPheLeuprol 248 LysHisLeuthrPheLeuprol 259 GTGACAGTTTCTGTGAGAAATTCA 277 LysHysAsnIleThrLysThrE 277 LysLysAsnIleThrLysThrE 277 LysLysAsnIleThrAgagaTGTTCTTTCTTGTGAGAATTTCTTTCTTTCTTTCTTTTTTTT	Conservative: 204 Mismatches: 551 Indels: 284 Gans: 60	ò	317 SerProGlyProValGl
12 Institutorywalicyaftrakladiatawaliayakliaprodiyprokegbelaawalithi 11 8 Greynocciccoccocacaccoccicalitisticasakaccicanii 144 8 Greynocciccoccocacaccoccicalitisticasakaccicanii 144 8 Greynocciccoccocacaccoccicalitisticasakaccicanii 144 8 Santariaccicanii 144 8 Santariaccica	12 Leuleucysvalcystrahah 85 CTCTTGGTCCTCGCCCACAG 32 AlaprodlylleileargProd 145 GTCCCTCCTGCTCCACT 52 CysProSerGlnValTrvall 202 CTGAATGACACGGAGAGAGAGAGAGAGAGAGAGAGAGAGA	(1-4576)	Ор	
### CHETTOSTICCTCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	85 CTCTTGGTCCTCCCACACA 32 AlabrodlyllelleArgProd 145 GTCCCTCCTGTCTCTACACACACACACACACACACACACA		ò	
3. Alabrodyljalatakagarodyglydanvalthriledlyvaldiuleulaudiulis 51. 41. groccccrccocococ — cadacocococococococococococococococococo	32 AlabroGlyllelleArgProG 145 GTCCCTCCTGCTCCACT- 52 CygProSerGlnValThrVall 202 CTGAATGAGCAGTGACTGTAA 72SerValLeuGluAlaGluG 56 TTCACTGACCTGGAGGAGAGA 90 LeuProSerLeuProLeuAanS 100 ThrGlyArgThrGlnAspGlul 107 ThrGlyArgThrGlnAspGlul 107 ThrGlyArgThrGlTCCCAAGTCTT 107 ThrGlyArgThrGlTCCCAAGTCTT 107 ThrGlyArgThrGlTCCCAAGTCTT 107 ThrGlyArgThrGlTCCCAAGTCTT 107 ThrGlyArgThrGlTCTCCATGG 115 GAGGACAGTCTGGTCTTTGTCC 147 LygArglleSerValPhrleuP 15 GAGGACAGTCTGGTCTTTGTCC 167 LeuIleLysAspProCygS 167 LeuIleLysAspProCygS 167 LeuIleLysAspProCygS 168 LeuGlyVallleSerLysThrF 186 LeuGlyVallleSerLysThrTCT 206 IleGlnValGlnValAsnAsp- 655 GTGGCGCTCCAAGCAATTTGTAA 224 TyrValLeuProCygPhrGluV 224 TyrValLeuProCygPhrGluV 225 GTGGTGGTACAAGTGTACAGTGT 226 UyHThrLeuThrPheLeuProl 227 LysHisLeuAanGlyThrIleT 227 LysHisLeuAanGlyThrIleT 227 LysHisLeuAanGlyThrIleT 227 LysHisLeuThrPheLeuProl 227 LysHisLeuThrPheLeuProl 227 LysHisLeuThrPheLeuProl 227 LysHisLeuThrPheLeuProl 227 LysHisLeuThrPheLeuProl 227 LysHisLauThrPheLeuProl 227 LysHisLauThrPheLeuProl 228 GTGGTGTGTGAGAATTTGCAGAA 238 GTGGTGGTGTGAGAATTTGCAGAA 248 LysHisLauThrPheLeuProl 259 GTGGTGGTGTGAGAATTTGCAGAA 261 LileThrPheLeuProl 261 LileThrPheLeuProl 262 GTGGTGTGTGAGAATTTGCAGAA 263 GTGGTGTGTGAGAATTTGCAGAA 264 LysHisLauThrPheLeuProl 265 GTGGTGTGTGAGAATTTGCAGAA 277 LysHisLauThrPheLeuProl 277 LysHisLauThrPheLeuProl 277 LysHisLauThrPheLeuProl 277 LysHisLauThrPheLeuProl 27		đ	
145 GTCCCCTCCCCACCTCT-CACACCACTCGCACTCTCTCTCTCTCTCTCTCTCTCTCTC	145 GTCCCTCCCTGCTCCACT- 52 CysProSerGlnValThTVall 202 CTGAATGAGACAGTGACTGTAA 72SerValLeuGluAlaGluG 262 TTCACTGACCTGGAGGAGAA 90 LeuProSerLeuProLeuAsnS 310GCTGTCCCAAGAA 3110GCTGTCCCAAGAA 364 AAAGGACCAACCCAAGAA 127 LysPheArglleSerValPhelleG 15 is AAATTCGTGTTCTCTCATGC 147 LysPheArglleSerValPhelleG 15 is AAATTCGTGTTCTCCATGG 167 LeuIleLysAspProLysS 16 LeuGlyValleSerLysThrF 206 IleGlnValleSerLysThrF 206 IleGlnValleSerLysThrF 206 IleGlnValleSerLysThrF 206 IleGlnValleBerCAAGAAAATCA 224 TyrValLeuProLysBapAaTCG 224 TyrValLeuProLysPhelleUProl 235 GTGGCCTCCAAGTTTGAAGAAATTGA 246 LysHisLeuAsnGlyThrIleI 247 LysHisLeuThrPheleuProl 248 LysHisLeuAsnGlyThrIleI 249 LysHisLeuThrPheleuProl 240 LysHisLeuThrPheleuProl 241 LysHisLeuThrPheleuProl 252 GTGGCTGTGGAAATTGAAGAATTCA 271 LysLysAsnIleThrLysThrF 272 LysLysAsnIleThrLysThrF 273 LysLysAsnIleThrLysThrF 274 LysHisLeuThrPheleuProl 277 LysLysAsnIleThrLysThrF 277 LysLysLysLysLysLysLysLysLysLysLysLysLysL	euLeuGluHis	ò i	
22 Cystroserolnyalthridallysal,dolleduksaltsalsalsalsalsalthritist 22 Creatrosectolnyalthridallysal,dolleduksalsalsalsalthritist 22 Creatrosectolnyalthridallysal,dolleduksalsalsalsalthritist 22 Creatrosectolnyalthridallysal,dolleduksalsalsalsalthritist 23 Creatrosectolnyalthridallysal,dolleduksalsalsalsalthritist 24 Creatrosectolnyalthridallysalthritist 25 Thridallysalthridallysalthritist 26 Thridallysalthridallysalthritist 26 Thridallysalthritist 27 Thridallysalthridallysalthritist 28 Thridallysalthritist 29 Leutholitist 29 Thridallysalthritist 29 Leutholitist 29 Thridallysalthritist 29 Thridallysa	52 CysProSerGlnValThrVall 202 CTGAATGAGACAGTGAAT 72SerValLeuGluAlaGluG 262 TTCACTGACTGGAGGGGGAA 90 LeuProSerLeuProLeuAsnG 107 ThrGlyArgThrGlnAspGluI 107 ThrGlyArgThrGlnAspGluI 107 ThrGlyArgThrGlnAspGluI 107 ThrGlyArgThrGlTGTCCAAGGTCTI 107 ThrGlyArgThrGlTGTCCAAGGTCTI 107 ThrGlyArgThrGlTGTCCAAGGTCTI 107 ThrGlyArgThrGlTGTCTCATGG 115 GAGGACAGTCTGGTCTTTGTC 147 LysPheArgIleValThrCub 167 LeuIleLysAspProLysS 116 LeuGlyValIleSerLysThrE 186 LeuGlyValIleSerLysThrE 186 LeuGlyValIleSerLysThrE 186 LeuGlyValIleSerLysThrE 186 LeuGlyValIleSerLysThrE 187 GAGGCCTCAAGCAGTTTGAAG 187 TyrGTTCTTCCCAAGGTTGAGAAATCTT 206 IleGlnValGlnValAsnAsp- 112 TTGTTCTTCCCAAGTTTGAAG 224 TyrValLeuProLysBheGluV 224 TyrValLeuThrPheLeuProl 235 GTGGCGTAAGAAGAAATCA 246 LysHisLeuThrPheLeuProl 257 LysHisLeuThrPheLeuProl 267 GTGAAAAACCAAGGTCT 277 LysHysAsnIleThrLysThrE 277 LysHysAsnIleThrLysAsnValMecA	TTCTGAGCTAC	g (
202 CTGANTGAGACTGAGACTGAGACTCTCAGAGAGACCTC 261 72SerValladQ1MAGQ1Q1Y-ValPheG1ULyGQ198TPBLyGThtLeuTht 89 73SerValladQ1MAGQ1Q1Y-ValPheG1ULyGQ198TPBLyGThtLeuTht 89 74SerValladQ1MAGQ1Q1Y-ValPheG1ULyGQ198TPBLyGThtLeuTht 89 75SerValladQ1MAGQ1Q1Y-ValPheG1ULyGQ198TPBLyGThtLeuTht 89 76SerValladQ1MAGQ1Q1Y-ValPheG1ULyGQ198TPBLyGTHTLeuTht 89 77SerValladQ1MAGQ1Q1Y-ValPheG1ULYGQ198TPBLyGTHTLEUTH 89 78SerValladQ1MAGQ1Q1Y-ValPheG1ULYGQ198TPBLYGTHTLEUTH 89 79CATCCCAAAAACACCAAACAAACAACAACAACAACAACAA	202 262 310 310 107 107 1186 1187 1286 228 228 228 228 228 228 228 228 228		Ši i	
72	262 310 107 1107 1107 1107 1107 1107 1107 1		q O	
262 TTCATCHACCHIGACCHACHANTACCHICCACCTTCC	262 310 107 107 117 117 117 1186 535 535 772 772 832 277 277 277 277 277 277 277 277 277 2	ysThrLeuThr	डें र	N 1
90 LeuProSerteuProLeuAsserAlaAspGlu	90 310 107 107 107 107 107 107 107 1		Q	n o
10	310 107 107 127 147 147 147 167 167 168 186 186 186 186 186 186 186 186 186	IleTyrGluLeuArgVal 1	ò f	N V
107 ThrdlyArgThrGlaAspClutlaLeuPheSerAsnSerThrArgLeuSerPheCluthr 126 364 AAAGACCCCCCCAGAA	101 364 127 415 147 167 172 206 655 224 224 224 224 224 227 227 227	n	g (0 (
127 LysarglleserValheledlnthAspLyablaLouyrIUyProLysGlndluVal 146 127 LysarglleserValheledlnthAspLyablaLouyrIUyProLysGlndluVal 146 147 LysarglleserValheledlnthAspLyablaLouyrIUyProLysGlndluVal 146 147 LysablaxglleValthIntouPheserAspPacLysProLysThrSerLauanile 146 147 LysablaxglleValthIntouPheserAspPacLysProCytLysThrSerLauanile 146 147 LysablaxglleValthIntouPheserAspPacLysProCytLysThrSerLauanile 146 147 LysablaxglleValthIntouPheserAspPacLysProCytLysThrSerLauanile 146 148 LauanileValthColdColdColdColdColdColdColdColdColdCold	364 127 1415 1475 1475 186 186 186 186 186 186 186 186 186 186		Š	
127 Lyskrg11eSecValphe1eG1nmhssplvshaleuuyrtypPrilysG1146	127 415 415 1167 127 128 535 595 595 595 655 655 655 655 655 655 65		3 8	
1415 GAGGACAGTCGTTGTCCAGACGACAATCCAACCAGGCAGACAGTG 474	415 1475 1675 186 186 186 186 186 186 186 186 186 186		; 셤	LO.
	147 475 1167 1186 1286 1286 1286 1297 1272 1272 1272 1272 1273 1273 1273 127	O	ò	
157 Additticdrotrictcroangeardanciricaccccaparagactroangeards 158 1450	475 167 186 186 186 186 187 172 173 183 183 183 183 183 183 183 183 183 18		; A	
167 Leu	167 186 535 206 655 655 772 832 832 832 832 832 832 832 832 832 83		ò	
S35 GTATACATTCAGGATCCCAAAGGAAATCGCAACGAAGTTTCCAGTTAGAG 594 186 LeuGlyValIteSerLySThrPheGInLeuSerSerHisFrolleLeuGlyAspIrpSer 205	535 186 595 655 655 672 772 832 832 832 832 832 832 832 832 832 83	18	: A	
186 LeuGlyValIleSerLysThrPheGlnLeuSerSerHisProlleLeuGlyAspTrpSer 205	186 595 206 655 712 744 772 832 832 832 772 892 772 892 892		ò	
206 IleGlnValGlnValAsnAspGlnThrTyrTyrGlnSerPheGlnValSerGlu 223	206 206 655 712 712 772 832 892 272 272 892 273		: 음	
206 IleGlnValGlnValAsnAspGlnThrTyrTyrGlnSerPheGlnValSerGlu 223 555 655 GTGGGGTACAGAGAAATCAGGTGGAAGGACCCCTTTCACGTGGAGGAA 711 655 GTGGGGTACAGAGAAATCAGGTGGAAGGACCCCTTTCACGTGGAGGAA 711 672 TTYVAlLeubrolysPheGluValThrIeuGlnThrProleuTyrCysSerMetAsnSer 243 673 TTYGTTCTTCCCAAGTTTGAAGTACAAGTAACAGTAATCACATCTTGGAA 771 674 LysHisLeuAsnGlyThrIleThrAlaLysTyrThrTyrGlyLysProValLysGlyAsp 263 675 TTYGTTCTTCCCAAGTTTGAAGTACAAGTAACAGTAATGAAAACCTGCCTG	206 655 224 712 772 248 248 248 248 248 272 272 272 272 272 272 273 274 277 277 277 277 277 277 277 277 277		6	
655 GTGGTGGTACAGAAGAAATCAGGTGGAAGGAC——CCTTTCACCGTGGAGAA 711 224 TyrValleuProLysPheGluValThrLeuGlnThrProLeuTyrCysSerMetAsnSer 243 224 TyrValleuProLysPheGluValThrLeuGlnThrProLeuTyrCysSerMetAsnSer 243 225 TyrValleuProLysPheGluValThrLeuGlnThrProLeuTyrCysSerMetAsnSer 243 226 TyrValleuProLysPheGluValThrTeuGluTyrCysSerMetAsnSer 243 227 TyrGTTCTTCCCAAGTTTGAAGTAACAGTAATGGGAAGATATCACATCTTGGAAA 771 228 GTGAGTTGATTGATTGATGAGTAATGGGAAGATTGAGAATTGAAGATTGA 831 229 GTGACTGTGAGAATTTGAGTGACGTTCCGACTGCCCTGGAGATTGA 831 230 GTGACTGTGAGAATTTGAGTGACGTTCCGACTGCCCAGGGTGAAGATTCA 891 240 LysHisLeuArgataAGTAATAGTGACGTTCCGACTGCCCTGGACAT 831 251 GTGACTGTGAGAATTTGAGTGACGTTCCGACTGCCTGTGAAGATTCA 891 252 GTGACTGTGAGAATTTGAGTGACACTGCCAAGAGTTTAATCAGCA 951 253 GTGACTGTTGTGAGAAATTCAGTGGACACACTGCCATGTTTATCAGCA 951 254 GTGACTGTTGTGAGAAATTCAGTGGACACATGACTGCTTCTATCAGCA 951 255 GTGAAA—————————————————————————————————	655 224 712 244 772 264 272 292 273 292 293		7 A	
224 TyrValleuProLysPheGluValThrProLeuTyrCysSerMetAsnSer 243 111	224 712 244 772 264 272 272 272 292 297	71	8	
112 TTTGTTTCTTCTCTAGGTTTCAGTAACAGTAACAGTAATCACCTTTGGAA 771 244 LySHisLeudasnGlyThrIlleThrAlaLySTYTHTTYGlyLySProdlyJySGlyAsp 263 113 1111 111111	712 244 772 264 232 272 272 277 2952		g -£	
244 LysHisLeuAsnGlyThrIleThrAlaLysTyrThrTyrGlyLysProValLysGlyAsp 263 315	244 264 264 272 272 272 272 277 277 295		3 8	
772 GARGAGATGATGATGATGATGATGATGATGATGATGATGATGA	772 264 832 272 277 277 297	26	Š 2	
264 ValThrleuThrPheLeuProLeu	264 272 272 272 277 295 297		3 8	
	832 272 892 277 277 295 297	271	È i	
272	272 892 277 277 952		a	
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	27	Š 1	
277 LysLysAsnileThrLysThrPheLysIleAsnGlySerAlaAsnPheSerPheAsnAsp 296 577 LysLysAsnIleThrLysThrPheLysIleAsnGlySerAlaAsnPheSerPheAsnAspLeuSerGluTyrLeuAspLeuSer 316 587 CluGluMetLysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSer 316 587 CluGluMetLysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSer 316 587 CluGluMetLysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSer 316 587 CluGluMetLysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSer 316 588 CluGluMetLysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSer 316 588 CluGluMetLysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSer 316 588 CluGluMetLysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSer 316	277 295 295	σ,	8 8	; ;
952 GTAAAAACCAAGGTCTTCCAGCTGAAGAGGAGGAG 987 297 GluGluMetLysAenValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSer 316 Db 1927	952	20	5 5	
297 GluGluMetLysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSer 316	297	96 DABGAG 38	3 8	
		31	3 8	1927 GGCTTCCCTGGGCCTTT

0	988	TATGAAATGAAA
5.	317	SerProGlyProValGluIleLeuThrThrValThrGluSerVal 331
0	1024	Aacadrdgaarrdacrgaaggcagrccag
5.	332	LysGlnHisAsj
.0	1084	rrrdrgaaagragacrcacacriricgacaga
.	Ŋ	UDhePheAspTyrThrThrValLeuLysProSerLeuAsnPheThrAlaThrValLys 37
۵.	m	CAG 11
> c	372	ValThrargalaAspGlyAsnGlnLeuThrLeuGluGluArgAzgAsnAsnValValile 391
ı >-	3 6	ThrGlnArgAsnTyrThrGluTyrTrpSerGlySerAsnSerGlyAsnGlnLy8 41
۵.		
>-	412	ysileAsnTyrThr
۵	1246	ATGGGTACCT
`	42	IleLeuGluAspSer 438
Ω	1306	GAG
>-	m)	SerSerMetAlaValHisSer 458
۵	1366	GAAGAGGCACATCACACTGCTTAT 1389
>-	459	LeuPheLysSerProSerLysThrTyrIleGlnLeuLysThrArgAspGluAsnIleLys 478
۵	1390	TCCCCAAGCAA
>-	479	ValGlySerArg 492
م	1450	ATACTCAGACAGT
>-	493	LeuLysGluLeuSerTyrMetValValSerArgGlyGlnLeuValAlaValGly 510
۵	1510	CTGAAGAAGCTCTCCTTCTATTATCTGATAATGGCAAAGGAAGG
>-	511	
۵	1570	ACTCATGGACTGCTTGTGAAGCAGGAAGACATGAAGGGCCATTTTTCCATCTCAATCCCT 1629
>-	521	ProGluAsnSerTrpThrProLysAlaCysVallleValTyrTyrIleGluAspAspGly 540
۵	1630	GIGAAGICAGACAITGCTCCTGTCGCTCGGTTGCTCATCTATGCTGTTTTACCTACC
>-	541	GlullelleSerAspValLeuLysIleProValGlnLeuValPheLysAsnLysIleLys 560
Q.	1690	GACGTGATTGGGGATTCTGCAAATATGATGTTGAAAATTGTCTGGCCAACAAGGTGGAT 1749
>-	561	LeuTyrTrpSerLysValLysAlaGluProSerGluLysValSerLeuArglleSerVal 580
۵	1750	irdagericadecearcacaaagrerecedageereacaceceaecidedagecacageg 1809
>	581	InProAspSerIleValGlyIleValAlaValAspLysSerValAsnLe
Ω	1810	- Q
>-	. 600	
۵	1867	CCTGATGCTGAGGTCTCGGCGTCCTCGGTTTACAACCTGCTACCAGAAAAGGACCTCACT 1926
>-	0	
م	1927	GGCTTCCCTGGGCCTTTGAATGACCAGGACAATGAAGACTGCATCAATGGTCATAATGTC 1986

71

6

146

185 595 655 223 263 832 892

```
----CTTCACACTGAGGCCCAGATCCAA 1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ||| :::|||
ACCAAACTCTCA---TTTGTGAAAGTGGACTCACACTTTCGACAGGGA-----ATT 1132
                                         297 GluGluMetLysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSer 316
                                                                                                                                                                             LeuProSerLeuProLeuAsnSerAlaAspGlu-----IleTyrGluLeuArgVal 106
                                                                                                                                                                                                                             107 ThrGlyArgThrGlnAspGluIleLeuPheSerAsnSerThrArgLeuSerPheGluThr 126
                                                                                                                                                                                                                                                                                                                                LysPheArglleValThrLeuPheSerAspPheLysProTyrLysThrSerLeuAsnIle 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TyrvalleuprolyspheGluvalThrLeuGlnThrProLeuTyrCysSerMetAsnSer 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .----SerPheTrpGlyLys 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          893 CAGGCTITCTGAGAAATTCAGTGGACAGCTAAACAGCCATGGCTGCTTCTATCAGCAA 952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LystysAsnIleThrtysThrPheLysIleAsnGlySerAlaAsnPheSerPheAsnAsp 296
 CTCTTGGTCCTCCTGCCCACAGACGCCTCAGTCTCTGGAAAACCGCAGTATATGGTTCTG 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerProGlyProValGluIleLeuThr------ThrValThrGluSerVal 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ThrGlyIleSerArgAsnValSerThrAsnValPhePheLysGlnHisAspTyrIleIle 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ::: :::||| :::::|
GAAGAGATGAATGTATCAGTGTGGCCTATACACATATGGGAAGCCTGTCCCTGGACAT
                                                                                                                                                                                          GTATACATICAGGATCCCAAAGGAAATCGCATCGCACAATGGCAGGTTTCCAGTTAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                 LeuGlyVallleSerLysThrPheGlnLeuSerSerHisProlleLeuGlyAspTrpSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                   LysHisLeuAsnGlyThrIleThrAlaLysTyrThrTyrGlyLysProValLysGlyAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |||||||::::::
833 GTGACTGTGAGCATTTGCAGAAAGTATAGTGACGCTTCCGACTGCCACGGTGAAGATTCA
                                                                         CysProSerGlnValThrValLysAlaGluLeuLeuLysThrAlaSerAsnLeuThrVal
                                                                                                   craaargaaacadrdacrdraacrdcrrccrrdgaagrcrgrcaggagaagagagagaccrc
                                                                                                                           ---SerValleuGluAlaGluGly---ValPheGluLysGlySerPheLysThrLeuThr
                                                                                                                                                   263 TTCACTGACCTGGAGGGGGGGAGAATGACGTACTCCACTGTGTCGCCTTC------
                                                                                                                                                                                                                                                       365 AAAGGACCAACCAAGAA-----TTTAAGAAGCGGACCACAGTGATGGTTAAGAAC
                                                                                                                                                                                                                                                                                              GAGGACAGTCTGGTCTTTGTCCAGACAAATCAATCTACAAACCAGGGCAGACAGTG
                                                                                                                                                                                                                                                                                                                                               Leu---IleLysAspProLysSerAsnLeuIleGlnGlnTrpLeuSerGlnGlnSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IleGlnValGlnValAsnAsp----GlnThrTyrTyrGlnSerPheGlnValSerGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   32 AlaProGlyIleIleArgProGlyGlyAsnValThrIleGlyValGluLeuLeuGluHis
                                                                                                                                                                                                                                                                                LysArgileSerValPhelleGinThrAspLysAlaLeuTyrLysProLysGinGluVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ValThrLeuThrPheLeuProLeu-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     989 TATGAAATGAAA------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        025
 98
                                                                           52
                                                                                                                                                                                                      311
                                                                                                                                                                                                                                                                                                          416
                                                                                                                                                                                                                                                                                                                                147
                                                                                                                                                                                                                                                                                                                                                                                    167
                                                                                                                                                                                                                                                                                                                                                                                                            536
                                                                                                                                                                                                                                                                                                                                                                                                                                    186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         244
                                                                                                   203
                                                                                                                           72
                                                                                                                                                                             90
                                                                                                                                                                                                                                                                                127
                                                                                                                                                                                                                                                                                                                                                          476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          272
                        ò
                                          g
                                                                   8
                                                                                         음
                                                                                                                          ò
                                                                                                                                             엄
                                                                                                                                                                     ઠે
                                                                                                                                                                                                ద
                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                             \delta
                                                                                                                                                                                                                                                                                                  음
                                                                                                                                                                                                                                                                                                                          \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                  \overset{\sim}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \dot{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                       CCAGAAAAAGGAAGAGTTCCCCTTTGCTTTAGGAGTGCAGACTCTGCCTCAAAACTTGTGAT 4101
                                    AspleuAsn---HisValAspleuAsnValCysThrSerPheSerGlyProGly----- 1292
                                                                                     ---ArgSerGlyMetAlaLeuMetGluValAsnLeuLeuSerGlyPheMetValProSer 1311
                                                                                                                                       GlualalleSerLeu-----SerGluThrValLysLysValGluTyrAspHisGly 1328
                                                                                                                                                           CCAACAGTGAAAATGCTTGAAAGATCTAACCATGTGAGCCGGACAGAAGTCAGCAGCAAC 4281
                                                                                                                                                                                       LysLeuAsnLeuTyrLeuAspSerValAsnGluThrGlnPheCysValAsnIleProAla 1348
                                                                                                                                                                                                      ValArgAsnPheLysValSerAsnThrGlnAspAlaSerValSerIleValAspTyrTyr 1368
                                                                                                                                                                                                                                                         LeuLeuCysValCysThrAlaAlaLeuAlaValAlaProGlyProArgPheLeuValThr 31
                                                           GAACCCAAAGCCCAACCAGCTTCCAAATCTCCCTAAGTGTCAGTTACACAGGGAGCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4577
451
266
551
284
59
                                                                                                                                                                                                                                                                                            GluProArgArgGlnAlaValArgSerTyrAsnSer 1380
                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-020-095-4 (1-1428) x US-10-052-817-1 (1-4577)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6.16e-134
1441.00
46.20%
29.06%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: (44)..(4468)
NAME/KEY: mat peptide
LOCATION: (113)..(4468)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
NAME/KEY: sig_peptide
LOCATION: (44)..(112)
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 4577
                                                                                                                                                                                                                                                                                                                                             RESULT 12
US-10-052-817-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-052-817-1
                                                                                                                                                                                                                                           1349
                                     1276
                                                             4102
                                                                                       1293
                                                                                                                                       1312
                                                                                                                                                                 4222
                                                                                                                                                                                         1329
                                                                                                                                                                                                                                                                   4342
                                                                                                                                                                                                                                                                                            1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match:
                                                                                                                                                       g
                                                     g
                                                                            à
                                                                                                        8
8
                                                                                                                                                                                     8 8
                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                  ò
```

2108 TGTCCACAGCTTCAACAGTA	661 AlaGluArgPheMetGluGl	2168 GAGTCAGATGTAATGGGAAG	GlySerS	AspThra	::: 2270 TTGGTGGTGGTAAACTCAGC	718 ThrSerTrpValAlaThrGl	2330 ACCGAGTGGAAGGCAGGGGC		Val	2447 GTGATTCGTGGAGAGGCCTT			G1u	813 GluAspGlyAlaThrValle		833 ThrvalThrAlaLeuSer	::: 2654 ACTGIGAGCGCAGAGGCACI	842SerAE	2714 CCTGAACACGGAAGGAAAGP						917 MetProTyrGlyCysGlyGl	2945 ATGCCCTATGGCTGTGGAGA	937 AspTyrLeuThrLysLysLy				
. d	ò	qu	හි සි	8 8	qп	Š	gg :	දු දු	δλ	q _Q	λŏ	QQ	ઠે દ	3 8	. a	ò	Q	δλ	QO	ò	a :	à a	ò	q ₀	ò	ΩD	δ	Ωp	රි ස්	g ò	1
GluPhePheAspTyrThrThrValLeuLysProSerLeuAsnPheThrAlaThrValLys	1133 CCCTTCTTTGGGCAG 1133 CCCTTCTTTGGGCAG	3/2 Valintargalaaspolyashcinteuciduciduargargashashaavaride 1148 GTGCCCTAGTAGATGGGAAAGCCTCTCTGTACCAAATAAAGTCATA	ThrvalThrGlnArgAsnTyrThrGluTyrTrpSerGlySerAsnSerGlyAsnGlnLys	1196	MecGlualaValGlnLysileAsnTyrThrValProGlnSerGlyThrPhe	I.vs.leGlubheProIleLeuGluhspSer	::: :: ::			459 LeuPheLysSerProSerLysThrTyrIleGlnLeuLysThrArgAspGluAsnIleLys	479 ValGlySerAroPheGluLeuValValValSerGlyAsnLy8Arg	1451 TGTGGCCATACTCAGACAGTCCAGGCACATTATATATTCTGAATGGAGGCACCCTGCTGGGG	493 LeulysGluLeuSerTyrMetValValSerArgGlyGlnLeuValAlaValGly	 1511 CTGAA	511	1571 ACTCATGGACTGCTTGTGAAGGAAGACATGAAGGGCCATTTTTCCATCTCAATCCCT	521 ProGluAsnSerTrpThrProLysAlaCysVallleValTyrTyrIleGluAspAspGly ::::::::::	1631 GTGAAGTCAGACATTGCTCCTGTCGGTTGCTCTATGCTGTTTTACCTAGG	541 GluileileSerAspValLeuLysileProValGnLeuValPheLysAsnLysileLys::::: :::: ::::	561 LeuTyrTrpSerLysValLysAlaGluProSerGluLysValSerLeuArgIleSerVal	1751	581 ThrGli	1811 GCT	601 AlaSerAsnAspIleThrMetGluAsnValValHisGluLeuGluLeuTyrAsnThr	1868 CCTGATGCTGAGCTCTCGGCGTCCTCGGTTTACAACCTGCTACCAGAAAAGGACCTCACT	620 GlyTyrTyrLeuGlyMet	1920 GCC11C7C1GGGCC11TGAATGACCGATGACGATGACTCGATCATCATCATCATCATCATCATCATCATCATCATCATCA	0.20 Filter LABIDSEL 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	632	2048	
U	ц (ם יכ	O'	Д	Or E	1 C	гΩ	ø	ы	0 1	. O	. 🗅	O	а	Ċ,		o f	ii i	U A	, 0	Ц	ď	u	u	н	U A	٠ (1⊒ ر	J	ч	,
	352 GluphePheAspTyrThrThrValLeuLysProSerLeuAsnPheThrAlaThrValLys 371 Db 2108	352 GluphepheAspTyrThrThrValLeuLysProSerLeuAsnPheThrAlaThrValLys 371 Db 2108	352 GluphepheAspTyrThrThrValLeuLysProSerLeuAsnPheThrAlaThrValLys 371 1133 CCTTCTTTGGG	352 GluphepheAspTyrThrThrValLeuLysProSerLeuAsnPheThrAlaThrValLys 371 1133 CCCTTCTTGGG	352 GluphePheAspTyrThrThrValLeuLysProSerLeuAsnPheThrAlaThrValLys 371 1133 CCCTTCTTGGG	352 GluphePheAspTyrThrThrValLeuLysProSerLeuAsnPheThrAlaThrValLys 371 1133 CCTTCTTGGG	352 GluphepheAspTyrThrThrValLeuLysProSerLeuAsnPheThrAlaThrValLys 371 1133 CCCTCTTTTGGG	352 GluphepheAspTyrThrThrValLeuLysProSerLeuAsnPheThrAlaThrValLys 371 1133 CCTTCTTGGG	352 GluphepheAspTyrThrThrValLeuLysProSerLeuAsnPheThrAlaThrValLys 371 1133 CCCTCTTGG	352 GluphepheAspTyrThrThrValLeuLysProSerLeuAsnPheThrAlaThrValLys 371 1133 CCTTCTTGGG	352 GluphepheasptyrthrThrValLeuLysProSerleuAsnPheThrAlaThrValLys 371 1133 CCCTTCTTTGG 1148 GTGCGCTAGTAGAAGGCGTCCTATACCA	352 GluphepheAspTyrThrThrValLeuLysProSerLeuAsnPheThrAlaThrValLys 371 1133 CGCTHTTGGG	352 GluPhePheAspTyrThrThrValLeuLysProSerLeuAsnPheThrAlaThrValLys 371 1133 CCCTTCTTGGG 1133 CCCTTCTTGGG 1148 GTGGCCTAGGAAGGGCTCCTATACA 1150 TTCATC 1150 TTCAT	352 GluphePheAspTyThThThValleuLySPrOSerLeuAsnPheThrAlaThrVallys 371 1133 CCCTHCTTGGG	352 GlubhebhesbpfyrthrthrvalleuLysProSerLeuksnPhethrhlaThrvallys 371 1133 CCCTCTTTTTGGG 1147 Qy 661 1148 GGGGCCTAGTAGAGGGTGCTTTTTTTTTTTTTTTTTTTT	332 GluphephaspTyThrThrValLeuLysProSerLeuAsnPheThtAlaThrValLys 371 1133 CCCTTCTTTGGG	352 GluphepheaspfyrthrThrValleuLysProSerLeuAsnPheThrVallys 371 133 CCCTTCTTTGGG	132 GlubheabpayCrhrThrValleeUtysProSerLeuAsnPheThrAlaThrVally 371 Db 2108	13.2 GlupheabpaspyrThrThrValleeUtysProSerleuAsnPheThrAlaThrValley 371 Db 2108	35 GlubeheaspryrthrThrValleuLysProSerleuAsnPheThrAlaThrValley 371 1133 CCCTTCTTTGGG 1146 GTGGGCCTAGTAGATGGGAAAGGCGTCCCTATACA 1157 (All ThrArgAlaSeDIANSCTTCTATCACA 1158 GTGGGCCTAGTAGATGGGAAAGGCGTCCCTATACA 1159 GTGCGCCTAGTAGATGGGAAAGGCGTCCCTATACA 1150 TCATC 1150 TCATC 1151 TCATC 1151 TCATC 1151 TCATC 1151 TGATC 1151 TG	312 GluphephesAspTyrThrThtValleuLysProSerleuAsnPheThrAlaThtVallys 311 312 ValThrArgallaAspTyrThrThtValleuLysProSerleuAsnPhrallity 311 313 ValThrArgallaAspTyrThrThtLeuThrTeuLoluGluhrgArgAspanaenValvalite 391 314 GrandocardAaArgacaryCrThArgaryCrThArgargaspanaenValvalite 391 315 ValThrArgallaAspTyrThrGulyThrDecO	332 GluppephaspfyrthtThrValleulysProSerleukanPhefhtAlafhtvAlltys 311 1133 CCCTICTTTGGG 1134 CCCTICTTTGGG 1135 CCCTICTTTGGG 1136 TO A PAINTAL A	312 GluppephaspyrthtThtValleuLysProSerleukanbheffthAlaffthVallys 371 1113 CCCTICCTTGGG 1114 Place Associated Control of the	312 GlubhehaspfyrthrthvalteallysProSerieuhanhefhrhiathrvallys 371 372 GlubhehaspfyrthrthvalteallysProSerieuhanhefhrhiathrvallis 371 372 Glubhehaspfyrthrthlyspantyrthrollyspantyrthcollyspantyrthcollyspantyrthcollyspantyrthcollyspantyrthcollyspantyrthcollyspantyrthcollyspantyrthyspantyrthrollyspantyrthyspantyrthrollyspantyrthyspantyrthrollyspantyrthy	312 CitutheReapPyrthrHrValteautysProSerieukanheffirMiahrValing 371 312 CitutheReapPyrthrHrValteautysProSerieukanheffirMiahrValing 371 312 CCTTCTTCTCCTCTTCTCTTCTTCTTCTTCTTCTTTCT	15.5 GlimbebbeaspyThrThrThvalleulysProSerieubanhefhthAlthrivalthys 311 DB 2108	312 GlupphpakspythrthrValleuLysProSerieuAsmibhthrAisthrVallys 311 DB 2108	13.2 Clubble Physic Physics Clubble Control Clubble Cl	13.2 CLIPPE PRINCE CLIPPE CLI	1312 CUIPPEPPRASSIPYTHTHY GLEALLY SPICSS TEACHARD PETTY, ATTHYLIGHT 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	312 CILPROPORASSITYTHTRITYSLESLYSPICSETTERABLEDERTHALATHYSLING 371 DEC. 07 1147 DEC. 07 DEC. 07

ii ö	AspGlyValTyrAspAsnAlaGluTyr 66
661	AlaGluArgPheMetGluGluAsmGluGlyHisIleValAspIleHisAspPkGAGLUARGATCAGATGTAATGGGAAGAGGCCATGCACGCTGGTGCATGTTGAAGAG-
681 2219	<u>1</u>
698	AspT
718	A-Th
738	ThrProvalGluLeuGlnAlaPheGlnProPh
758	ValileArgGlyGluGluPheAlaLeuGluIleThrIlePheAsnTyrLeuLysAspAla 777
778	ThrGluValLysVall1e11eGluLysSerAspLysPheAsp11eLeuMetThrSerSer 797
798	GluIleAsnalaThrGlyHisGlnGlnThrLeuLeuValProSer 812
813	m vo
833	ThrvalThrAlaLeuSer
842	
857	857 GluLysSerTyrSerGlnSerIleLeuLeuAspLeuThrAspAsnArgLeuGlnSerThr 876
877	LeulysThrLeuSerPheSerPheProProAsnThrValThrGlySerGluargValGln 896 :::
897	IleThralailedlyAspValLeuGlyProSexileAsnGlyLeualaSerLeulleArg 916 ::::: ::: :::
917	MetProTyzGlyCysGlyGluGlnAsnMetIleAsnPheAlaProAsnIleTyrIleLeu 936
937	Asp
3065	MetargglnglyTyrglnargGluleuLeuTyrGlnarggluaspGlySerPt ::: ::: CICAACACTGGTTACCAGAGACAGTTGAACTACAACACTATGATGGCTCCTF
977	PheGly-

127 by Savigine See Vig De Lie Glinth Rash (Abada Labar Chanda Chada Cha

≵ı	439 S	yrPheLeuGlySerLysSerSerMetAlaValHisSer 458 	
ð	1560 G	158	83
<u>≿</u> ,	459 L	47	m
ď	1584 C	rigorgiterececaadeaageringrecaeerrageeeeargiereeaagaaraee	£.
⋩	479 V	ValGlySerProPheGluLeuValValSerGlyAsnLysArg 492	~
ą	1644 T	170	33
λ	493 L	.eulysGluLeuSerTyrMetValValSerArgGlyGlnLeuValAlaValGly 510	0
Q	1704 C	TGRAGAGCTCTCCTTCTATTATCTGATAATGGCAAAGGGAGCATTGTCCGAACTGGG 176	93
<u></u>	511 -	MetPheSerIhr 520	0
മ	1764 A	182	23
<u> </u>	521 P	ProGluAsnSerTrpThrProLysAlaCysVallleValTyrTyrIleGluAspAspGly 540	0
д	1824 G	grgaagicagacarrecrécreredéregerrecretaridaererrraceracedég 1883	833
<u>*</u>	541 G	GlullelleSerAspValLeuLysIleProValGlnLeuValPheLysAsnLysIleLys 560	0
Ω	1884 G	T 194	£3
<u>≻</u> -	561 L	euTyrTrpSerLysValLysAlaGluProSerGluLysValSerLeuArglleSerVal 580	0
۾	1944 T	TGAGCTICAGCCCATCACAAAGICTCCCAGCCTCACACGCCCACCTGCGAGTCA	33
≥.	581 T	ThrGlnProAspSerIleValGlyIleValAlaValAspLysSerValAsnLeuMetAsn 600	_
Q	2004 G	reagredgrenececerecerectedagaceaagedrecrectearaag 206	0.9
٨	601 A	AlaSerAsnAspIleThrMetGluAsnValValHisGluLeuGluLeuTyrAsnThr 619	•
, Q	2061 C	212	0
λ	620 G	GlyTyrTyrLeuGlyMet 625	
ą	2121 G	TTTGAATGACCAGGACGATGAAGACTGCATCAATCGTCATAATGTC 218	30
≻	626 P	PheMetAsnSerPheAla 631	_
ą	2181 T	224	0
≥ ₁	632 V	alPheGlnGluCysGlyLeuTrpValLeuThrAspAlaAsnLeuThrLysA	
ą	2241 T	TCCTAGAGGACATGGGCTTTAAAGGCATTCACCAAAGATTCGTAAACCCAAAATG 230	00
>-	652 A	SO.	
ą	2301 T		00
Ϋ́	661 A	AlaGluArgPheMetGluGluAsnGluGlyHisIleValAspIleHisAspPheSerLeu 680	0
.Ω	2361 G	241	-
✓	681 G	GlySerSerProHisValArgLysHisPheProGluThrTrplleTrpLeu 697	_
д	2412 -	CTCACACGAGACCGTACGAAGTACTTCCCTGAGACATGGATCTGGGAT 246	22
λ	698 A	spT	~
Q	2463 T	252	2
≻	718 T	ThrSerTrpValAlaThrGlyPheVallleSerGluAspLeuGlyLeuGlyLeuThr 737	_
à	2523 A		32

Db 3618 CTGGAGCCTGGAAGACAGCACAAGAGGGAACC	Oy 1089 LeualaLeuIleThrTyralaLeuSerSerValGlySt	1108	3735	Db 3795 CAGAAACCCAAGGCACCAGTGGGGGCATTTTACGAAC	1143	Db 3855 GAGATGACAICCIAIGIGCICCICGCITAICTC		Qy 1176 GlyGlyPheAlaSerThrGlnAspThrThrValAlaLa	1196	4032	Qy 1216 SerProLeuAlaValValGln Db 4089 ACHTTHCCAGCAAATTCCAAGTGGACAACAACAACA	1223	4149 TIGCCAGAGC	Oy 1239 GinLeuAsnValTyrAsnValLysAlaSerGlyS	1259		1276	Db 4296 GAACCCAAAGCCCACACCAGCTTCCAAATCTCCCTAA		1312	4416	Db 4476 CATGTCTTGATTTACCTTGATAGGTGTCAAATCAGA	1349	Db 4536 CTGCAAGATGTCCCAGTAAGAGATCTGAAACCAGCCA	Т	Db 4596 GAGACGGATGAGTTTGCAATTGCTGAGTACAATGC	KESULT 14 US-09-873-403-4	
ThrProValGluLeuGlnAlaPheGlnProPhePheIlePheLeuAsnLeuProTyrSer 757	2583 ACTGUUTUTUTUGAGUUTTUURGAGAGAGAGAGAGAAAUUUTT 2639 758 ValileArgGlyGluBheAlaLeuGluIleThrIlePheAsnTyrLeuLysAspAla 777	2640 GTGATTCGTGGAGAGGCCTTCACACTCAAGGCCACGGTCCTAAACTACCTTCCCAAATGC 2699 778 ThrGluvallysvalllelleGlulysSerAspLysPheAsplleLeuMetThrSerSer 797		Glu	2760 GAACAAGCGCCTCACTGCTGTGCAAACGGGGGGGCAA	2799ACTGTGTGTGTGGGAGTAACCCCAAAGTCATTAGGAAATGTGAATTTC 2846	ThrValThrAlaLeuSer	2847 ACIGIGAGCGCAGAGGCACIAGAGICICAAGAGCIGIGGGGACIGAGGIGCCIICAGII 2906 842SerAspAlaValThrGlnMetIleLeuValLysAlaGluGlylle 856	2907 CCTGAACACAAGAAAGACACAGTCATCAAGCCTCTGTTGGTTG	857 GlulysSerTyrSerGlnSerlleLeuLeuAspLeuThrAspAsnArgLeuGlnSerThr 876	LeulygThrLeuSerPheSerPheProProAsnThrValThrGlySerGluhrgValGln 896	3021GAAGAATTATCCCTGAAACTGCCAACAATGTGGTAGAAGAATCTGCCCGAGCTTCT 3077	897 IleThrAlatleGlyAspValLeuGlyProSerIleAsnGlyLeuAlaSerLeulleArg 916 3.1.::::	MET PYOTYKELI YOYSELIYELI MARTILLARIN MAKILLARIN MAKILL	3138 ATGCCTATGGCTGTGGAGGCAGAATATGGTCCTCTTTGCTCCTAACATCTATGTACTG 3197	937 AspTyrLeuThrLysLysClnLeuThrAspAsnLeuLysGluLysAlaLeuSerPhe 956 3100 Glumyantunantusaansaansaantaantaantaantaantaantaantaan	MetArgGlnGlyTyrGlnArgGluLeuLeuTyrGlnArgGluAspGlySerPheSerAla	::: :::	977 PheGlyAsnTyrAspProSerGlySerThrTrpLeuSerAlaPheValLeuArg 994	111GGGGGGGCGAIAIGGCGGGGAACCAGGGGCAACAIGGGGCGGGGGGGG	3378 ACTTTGCCCAAGCTCGAGCCTACATCATCATCAAGAAGACACATTACCCAAGCCCTC 3437	1015 ThrTrpLeuLysGlyHisGlnLysSerAsnGlyGluPheTrpAspProGlyArgVallle 1034	3438 ATATGGCTCTCCCAGAGGCAGAAGGACAATGGCTGTTTCAGGAGCTCTGGGTCACTGCTC 3497	1035 HisSerGluLeuGlnGlyGlyAsnLysSerProValThrLeuThrAlaTyrIleValThr 1054			1075 LeuGluSerGluPheSerArgGlyIleSerAspAsnTyrThr 1088	
δ i	8 8	ad yo	qq	ò	음 & ·	qq	λo 1	g &	qa	රු සි	ò	qq	8 6	3 &	qq	රි සි	ò	g q	8	3 &	7 원	ò	qa	<i>δ</i> 6	3 8	q	ò	

LeuSerGlyPheMetValProser 1311 :::|||||||||||:::
GTCTCTGGCTTCATTCCCTGAAG 4415 | ServalSerIleValAspTyrTyr 1368 GlnPhegln------Thrser 1159 LeuSerArgGlnArgAsnSerLeu 1175 :::::::|||::|||:: harcacgaagcagcagaargcccag 3971 ThrValThrGlyProSerSerFro 1215 AsnGlyPheGlyPheAlaIleCys 1238 AGIGICAGITACACAGGGAGCCGC 4355 LysLysValGluTyrAspHisGly 1328 AGCCGGACAGAAGTCAGCAGCAAC 4475 GlnPheCysValAsnIleProAla 1348 Ser---ProLysAlaLysGluAla 1107 ****
NACCAGGACAAGAGGAAGTA 3734 GlyMetGlnPheTrp----- 1124 ProArg----SerLeuAspile 1142 CAGGIGACTAICCAGICTICAGGG 4088 CGCCTGTTACTGCAGCAGGTCTCA 4148 ACAGGAGAAGGATGTGTCTACCTC 4208 SerSerArgArgArgSerIle 1258 ::: : : : 4235 ::: GAGACTCTGCCTCAAACTTGTGAT 4295 SerPheserGlyProgly---- 1292 ACACTGAGCTTGTTCTTCACGGTT 4535 CATGC---AGCCATGTATACC 3674 AACTCTGTCCATTGGGAGGGGCCT 3794 CCCCAGGCTCCCTCTGCTGAGGTG 3854 Lys------GluAsnLysAsp 1275 1380 14631

```
1528 ACTCATGGACTGCTTGTGAAGCAGGAAGACATGAAGGGCCATTTTTCCATCTCAATCCT 1587
                                                                                             g
                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                   8 6
                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                          원 중
                                                                                                                                                                                                                                                                                                                                                                                             음
                                                                                                                                                                                                                                                                                                                                                                                                                       장염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            සු දු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 상 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ठे वि ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                           g
                                                                        ઠે
                                                                                                                                            g
                                                                                                                                                                         \overset{\circ}{\sigma}
                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                              PAPLICANT: Stivetava, Pramod K

TITLE OF INVENTION: COMPLEXES OF ALPHA (2) MACROGLOBULIN AND ANTIGENIC
TITLE OF INVENTION: MOLECULES FOR IMMUNOTHERAPY
TITLE OF INVENTION: MOLECULES FOR IMMUNOTHERAPY
TILLE REPERENCE: 8449-178
CURRENT PAPLICATION NUMBER: US/09/873,403
CURRENT FILING DATE: 2001-06-04
PRIOR PLING DATE: 2000-07-25
PRIOR PLING DATE: 2000-07-25
PRIOR PLING DATE: 2000-06-02
NUMBER OF SEQ ID NOS: 5
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 4
LENGTH: 4422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LysPheArgileValThrLeuPheSerAspPheLysProTyrLysThrSerLeuAsnile 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      322 AAAGGACCAACCCAAGAA-----TITAAGAAGCGGACCACAGTGATGGTTAAGAAC 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       127 LysargileSerValPheileGinThraspLysAlaLeuTyrLysProLysGinGluVal 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Leu---IleLysAspProLysSerAsnLeuIleGlnGlnTrpLeuSerGlnGlnSerAsp 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       206 IleGlnValGlnValAsnAsp-----GlnThrTyrTyrGlnSerPheGlnValSerGlu 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                              103 GTCCCCTCCCTGCTCCACACT---GAGACCACTGAGAAGGGCTGTGTCCTTCTGAGCTAC 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     107 ThrGlyArgThrGlnAspGluIleLeuPheSerAsnSerThrArgLeuSerPheGluThr 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       186 LeuGlyVallleSerLysThrPheGlnLeuSerSerHisProlleLeuGlyAspTrpSer 205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      71
                                                                                                                                                                                                                                                                                                                                                                                      LeuLeuCysValCysThrAlaAlaLeuAlaValAlaProGlyProArgPheLeuValThr 31
                                                                                                                                                                                                                                                                                                                                                                                                                                      32 AlaProGlyIlelleArgProGlyGlyAsnValThrIleGlyValGluLeuLeuGluHis 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---SerValleuGluAlaGluGly---ValPheGluLysGlySerPheLysThrLeuThr 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGTGGCCTCAAGCAATTTTCTTTTTCCCCTCTCAAGGCCTTCCAAGGCTCCTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       52 CysProSerGlnValThrValLysAlaGluLeuLeuLysThrAlaSerAsnLeuThrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       220 Trcacrgaccrgaccacadaargacciacracrgracrccacrrc------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuProSerLeuProLeuAsnSerAlaAspGlu-----IleTyrGluLeuArgVal
                                                                                                                                                                                                                                                                        44422
451
266
551
284
59
                                                                                                                                                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                               US-10-020-095-4 (1-1428) x US-09-873-403-4 (1-4422)
Sequence 4, Application US/09873403
Patent No. US20020028207A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                          7.33e-134
1440.00
46.20%
29.06%
                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Homo sapiens
US-09-873-403-4
                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                              Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                              43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      167
                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
```

2	מדממתמתים 13	まることになることをおいないのは、これのは、これには、これには、これには、これには、これには、これには、これには、これに
	10 G16G16	10 voluments to the second of
. ۵	70 TITGIL	
>-	244 LysHisLe	LysTyrThrTyrGlyLysPro
۵	730 GAAGAGAT	
	64 Va	27
۵	F-1	CGACTGCCACGGTGAAGATTCA 8
>-	272	SerPheTrpGlyLys 27.
۵	850 CAGGCITI	AGAAATTCAGTGGACAGCTAAACAGCCATGGCTGCTTCTATCAGCAA 90
>-	277 LysLysAsnileT	hrLysThrPheLysIleAsnGlySerAlaAsnPheSerPheAsnAsp 29
Ω	910 GTAAAA	ccaaggreticcagetgaagaggaaggag 94
, >-	297 GluGluMe	31
Ω	946 TATGAAAT	
>-	317 SerProG	ThrValThrGluSerVal 331 ::: ::::::
۵	982 GAAGAAGC	<u>sgaattigactiggaaggcagtccagtgaaatcacaagaaccat</u>
>-	332 ThrGlyIle	SSEIAIGASNValSerThrAsnValPhePheLysGlnHisAs
۵	1042 ACCAAACT	TCATTGTGAAAGTGGACTCACACTTTCGACAGGGAAT
	352 GluphepheAspT	YrThrThrValLeuLysProSerLeuAsnPheThrA
٥	1090 cccrici	
>-	372 ValThrArg	AlaAspGlyAsnGlnLeuThrLeuGluGluArgAr
0	1105 GTGCGCCTZ	TAGATGGGAAAGGCGTCCCTATACCAAATAAAGTCATA 11
>-	392 ThrvalTh	rGlnArgAsnTyrThrGluTyrTrpSerGlySerAsnSerGlyAsnGlnLys 41
0		rcaargcraccacggarga
>-	412 MetGluAlaVal	GlnLysileAsnTyrThrValProGlnSerGlyThrPhe 4
o	1204 CATGGCC	caerterenticaeceacertargegracer
۰.	429 LysileG	IleLeuGluA
0	1264 AGGGTCAA	TTACAAGGATCGTAGTCCCTGTTACGGCTACCAGTGGGTGTCAGAAGA
>-	439 SerGluLe	heLeuGlyS
٥	1324 GAAGAGG	– F⊣
`~	459 LeuPheLysSe	rProSerLysThrTyrIleGlnLeuLysThrArgAspGluAsnIl
٥	1348 CTTGTGT	CCCAAGCAAGAGCTTTGTCCACCTTG
	479 ValGlySe	erProPheGluLeuValValSerGlyAsnLy8Arg 492
	1408 TGTGGCC	ACAGTCCAGGCACATTATATT
`~	493 LeuLysG]	IvalSerArgGlyGlnLeuvalAlaValGly 51
0	AA.	TTTTATTATCTGATAATGGCAAAGGGAGGCATTGTCCGAACTGGG 15
~	511	MetPheserThrMetPheserLeuThr 520
,	CHACET & OCUL	<u>ℷᢦ ೧୩୫೭೧୩୩.೧೩ ೩೧೦ ೩೦.೩೩೩೩ ೧೩ ೧೩ ೩೩೩ ೧</u> ೩೩

158 Procitions stripth Procedural 1990 [17] 1991 [17] 1991 [17] 1991 [17] 1991 [18] 1990 [18] 19	ThrValThrAlaLeuSer		TITITE PRODUCTOR TO SECULD A S	1089 Leunaleuntifing
ProdlukanserTrpfhrprotysaleCyevallevalityTytileGlukspapegij \$40 GUNIAGORGANTOCCCCACAAANTOCCCTAAAATOCTACCACACACACACACACACACACACA	8 6 8 6 8 6 8 6	3 B & B & B & B & B & B & B & B & B & B	8 8 8 8 8 8 8 8	6 E 6 E 6 E 6 E 6
ProdluAenSerTepThrProLysalacysValileValPtyTrileGluAspAspGly GGGAAATCCCCGGGGGGGGGGGGGAAATCCTCAGGGGGGAAAGGGGGAAATGGCGGAAAATGGCGGGGAAATGGCGAAAATGGCGGGAAAGGGGGAAAGGGGGAAAGGGGGAAAGGGGGAAAGGGG				
	ProdluAsnSerTrpThrProLysAlaCysValIleValTyrTyrIleGluAspAspGly ### GTGAAGTCAGACATTGCTCTGTCGTTGCTCATCTATGCTGTTTTACCTACC	GlyTyrTyrLeuGlyMet	GlyserSerProhisValArgLysHisPheProGluThrTrplleTrpLeu	ValileArgGlyGluGluPheAlaLeuGluIleThrIlePheAsnTyrLeuLysAspAla

Alignment Scores: 7.33e-134 Length: 4422 Score: 1440.00 Matches: 451 Score: Percent Similarity: 46.20% Conservative: 266 Best Local Similarity: 29.06% Mismatches: 551 Query Match: 19.60% Mismatches: 584 DB: 12 Gaps: 59 US-10-020-095-4 (1-1428) x US-09-750-972-4 (1-4422)	Qy 12 LeuLeuCysValCysThrAlaAlaLeuAlaValAlaProGlyProArgPheLeuValThr 31	Oy 32 AlaProGlyIleIleArgProGlyGlyAsnValThrIleGlyValGluLeuLeuGluHis 51	Qy 52 CysProSerGlnValThrValLysAlaGluLeuLeuLysThrAlaSerAsnLeuThrVal 71	Oy 72SerValLeuGluAlaGluGlyValPheGluLysGlySerPheLysThrLeuThr 89 :::	Oy 10 LeuDroSerLeuProLeuAsnSerAlaAspGlu1leTyrGluLeuArgVal 106 11	Qy 107 ThrdlyargThrdlnaspdlulleLeubheSerasnSerThrargLeuSerPheGluThr 126	Qy 127 LysArgileSerValPheileGlnThrAspLysAlaLeuTyrLysProLysGlnGluVal 146 :::	Qy 147 LysPheArglleValThrLeuPheSerAspPheLysProTyrLysThrSerLeuAsnlle 166	Qy 167 LeuIleLysAspProLysSerAsnLeuiledInGlnTrpLeuSerGlnGlnSerAsp 185 :::	Oy 186 LeuGlyValIleSerLysThrPheGlnLeuSerSerHisProlleLeuGlyAspTrpSer 205 :::: ::: :::	Qy 206 IleGlnValGlnVàlAsnAspGlnThrTyrTyrGlnSerPheGlnValSerGlu 223	Qy 224 TyrValLeuProLysPheGluValThrLeuGlnThrProLeuTyrCysSerMetAsnSer 243 :::	Qy 244 LysHisLeuAsnGlyThrIleThrAlaLysTyrThrTyrGlyLysProValLysGlyAsp 263 :: ::: ::::: Db 730 GAAGAGAATGAATGTATCAGTGTGGCCTATACACATATGGGAAGCCTGTCCTGGACAT 789	Qy 264 ValThrLeuThrPheLeuProLeu	Oy 272SerPheTrpGlyLys 276	277 LystysAsnIleThrLysThrPheLysIleAsnGlySerAlaAsnPheSerPheAsnAsp 29
bb 3676 GAGGACCTGACCTACCAACATGATGATCACGAAGCAGCAGAAATGCCAG 3735 QY 1176 GIYGIYPheAlaSerThrGlnAspThrThrValAlaLeuLysAlaLeuSerGluPheAla 1195 Db 3736 GGCGGTTTCTCCTCCAGCACACACAGTGCTCTCCCATGCTCTGTCCAAATATGGA 3795 QY 1196 AlaLeuMetAsnThrGluArgThrAsnIleGlnValThrValThrGlyProSerSerPro 1215 Db 3796 GCGCCACATTTACCAGGACTGGAAGGCTGCACAGGTGTTCAGGG 3852	Qy 1216 SerProLeuAlavalValGln	Qy 1223ProMetAlaValAsnIleSerAlaAsnGlyPheGlyPheAlaIleCys 1238	Qy 1239 GlnLeuAsnValTyrAsnValLysAlaSerGlySerSerArgArgArgArgSerIle 1258 ::::: ::: 	Qy 1259 GlnAsnGlnGluAlaPheAspLeuAspValAlaValLysGluAsnLysAsp 1275	Qy 1276 AspLeuasnHisValAspLeuasnValCysThrSerPheSerGlyProGly 1292	Qy 1293ArgSerGlyMetAlaLeuMetGluValAsnLeuLeuSerGlyPheMetValProSer 1311	Qy 1312 GlualaileSerLeuSerGluThrValLysLysValGluTyrAspHisGly 1328	Qy 1329 LysbeuasnbeuTyrbeuaspSerValasnGluThrGlnPheCysValasnIleProAla 1348 ::: :: :: bb 4240 CarGTCTTGATTTACCTTGATAAGGTGTCAAATCAGACACTGAGCTTGTTCTTCACGGTT 4259	Qy 1349 ValargasnPheLysValSerAsnThrGlnAspAlaSerValSerIleValAspTyr 1368 ::::::::	Qy 1369 GluProArgArgGlnAlaValArgSerTyrAsnSer 1380 	RESULT 15 US-09-750-972-4 ; Sequence 4, Application US/09750972	; FUBLICATION NO; USZUV4UU/Z993AI; GENERAL INFORMÁTION: ; APPLICANT: Pramod K. Srivastava ; APPLICANT: Pramod K. Srivastava ; TITLE OF INVENTION: ALPHA(2) MACROGLOBULIN RECEPTOR AS A HEAT SHOCK		ICATION NUMBING DATE: 200 ICATION NUMBING DATE: 200	; NUMBER OF SEQ ID NOS; 57 ; SOFTWARE: FastSEQ for Windows Version 3.0 ; TENGER, A422	

620 GlyTyr	ThrvalThra ::
6 4 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8	8 8 8 8 8 8 8 8 8 8
910 GTAMAAACCAAGGTCTTCCAGCTGAAGAGG	1528 ACTCATGGACTGCTGTGÀÀGCÀGGAAGACATGAAGGGCCATTTTCCATCTÀATCCCT 1587 521 ProGludsnSerTrpThrProLysAlaCysValileValTyrTyrIleGludspAspGly 540 1588 GTGAAGTCAGACATTGCTCGTGGCTGGTTGCTGATTTTACCTACC
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	8

•

9 y 9

g &

\$ a \$

90 A9

:::::: ::: 1973 CAGACCTCCTTGAAATACAATATT	.259 GlnAsnGlnGluAlaPheAspLeuAspValAlaValLysGluAsnLysAsp 1275	.000 ccagaaaagdaagarrcccrrrgcrrragaagrccagacrcrgacrcraaacrrgrgar 4059	276 AspLeuAsnHisValAspLeuAsnValCysThrSerPheSerGlyProGly 1292	::: :060 GAACCCAAAGCCCACACCAGCTTCCAAATCTCCCTAAGTGTCAGTTACACAGGGAGCCGC 4119		120 TCTGCCTCCAACATGGCGATCGTTGATGAAGATGGTCTCTGGCTTCATTCCCCTGAAG 4179	312 GlualalleSerLeuSerGluThrValLysLysValGluTyrAspHisGly 1328	4180 CCAACAGTGAAAATGCTTGAAAGATCTAACCATGTGAGGCGGACAGGAAGTCAGCAGCAAC 4239			349 ValArgAsnPheLysValSerAsnThrGlnAspAlaSerValSerIleValAspTyrTyr 1368		369 GluProArgArgGlnAlaValArgSerTyrAsnSer 1380	4360 GAGACGGATGAGTTTGCATTCGCTGAGTACAATGCT 4395	
3973	1259	4000	1276	4060	1293	4120	1312	4180	1329	4240	1349	4300	1369	4360	
ପ୍ର	ò	qq	ζ	qq	ò	QD	δ,	qq	ò	qq	È	qq	δλ	ΩÞ	

90 A

6 G G

Search completed: August 18, 2004, 08:57:54 Job time : 1752 secs

Wed

ĕ

```
546 ValLeuLysileProValGlnLeuValPheLysAsnLysileLysLeuTyrTrpSerLys 565
                                                      33, Appl
33, Appl
33, Appl
10, Appl
10, Appl
10, Appl
31, Appl
21, Appl
10, Appl
10, Appl
9, Appl
9, Appl
9, Appl
9, Appl
9, Appl
9, Appl
10, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20, Appl
1011, Ap
2, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VallysalagluproserglulysValSerleuarglleSerValThrGlnProaspSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and Protein Homologs
                                                                                                                                                                                                                                                        Sequence
Seq
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                             Sequence
Sequence
Sequence
                                                                                                      Sequence
Sequence
Sequence
                                                                                                                                                                               Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3033
880
2
1
17
US-08-447-411-44
US-08-447-411-75
US-08-447-411-75
US-08-447-411-75
US-08-617-947-33
US-09-017-947-33
US-09-017-947-33
US-09-017-947-33
US-09-218-1017B-1090
US-09-311-352B-1
US-09-311-352B-1
US-09-311-352B-1
US-09-311-352B-1
US-09-311-352B-1
US-09-543-681A-1952
US-09-543-681A-1952
US-09-543-681A-1952
US-09-543-681A-1952
US-09-543-681A-1952
US-09-917-1366
US-09-917-1366
US-09-637-048C-6
US-09-071-035-261
US-09-071-035-261
US-09-071-035-261
US-09-071-035-261
US-09-071-035-261
US-09-071-035-261
US-09-071-035-261
US-09-071-035-261
US-09-071-035-261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-020-095-4 (1-1428) x US-09-833-381-1810 (1-3033)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1810, Application US/09833381

Patent No. 6672186

GENERAL INFORMATION:
APPLICANT: Robison, Keith E.
TITLE OF INVENTION: No. 6672186el Nucleic Acid and
FILE REPERENCE: 5800-19
CURRENT APPLICATION NUMBER: US/09/833,381
CURRENT FILING DATE: 2001-04-11
PRIOR APPLICATION NUMBER: 09/516,448
PRIOR FILING DATE: 2000-02-29
NUMBER OF SEQ ID NOS: 2050
SOFTWARE: FRASEQ for Windows Version 3.0
SEQ ID NO 1810
LENGTH: 3033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4535.50
98.00%
97.78%
61.72%
                             4138
4138
814138
818138
98014
184016
184016
184016
184016
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
184017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
Best Local Similarity:
Query Match:
DB:
     TYPE: DNA
CRGANISM: Homo
US-09-833-381-1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 1
US-09-833-381-1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
Pred. No.:
                             . 995
        Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Command line parameters:
-MODEL=frame+ p2n.model -DEV=Xlh
-Q=/Cgn2_1/USPTO_spool/US10020095/runat_10082004_154040_17409/app_query.fasta_1.1607
-Q=/Cgn2_1/USPTO_spool/US10020095/runat_10082004_154040_17409/app_query.fasta_1.1607
-Q=/Cgn2_1/USPTO_spool/US10020095/runat_10082004_154040_17409/app_query.fasta_1.1607
-LOOPEXT=0 -UNITS=Dits -START=1 -END=-1 -MARRIX=blosum62 -FRANS=human40.cdi
-LIST=45 -DOCALIGN=200 -THR_SCORE=Eptc -THR_MAX=100 -THR_MIN=0 -ALIGN=15
-MODE=LOCAL -COTFMT=ptc -NORM=ext -HEAPSIZE=500 -MINIENE=0 -MAXIEN=2000000000
-USER=US10020095_@CGN 1 _1 111 @runat_10082004_154040_17409 -NCFU=6 -ICFU=3
-NO MAAP -LARGEQUER* 'NEG SCORES=0 -WAIT -DSPEDCOR:100 -LONGLOG
-DSV TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPDP=10 -XGAPDF=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELDEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1810, Ap
Sequence 109, Appli
Sequence 1174, App
Sequence 1, Appli
Sequence 2, Appli
Sequence 23, Appli
Sequence 107, App
Sequence 107, App
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
                                                                                                                                                                               August 18, 2004, 00:38:25; Search time 214 Seconds (without alignments) 3703.130 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                       MQGPPLLTAAHLLCVCTAAL.......HSSVIFIFCFKLLYFMELWL 1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sued_Patents_NA:*
/cgn2_6/ptodate2/ina/5A_COMB.seq:*
/cgn2_6/ptodata/2/ina/5B_COMB.seq:*
/cgn2_6/ptodata/2/ina/6B_COMB.seq:*
/cgn2_6/ptodata/2/ina/6B_COMB.seq:*
/cgn2_6/ptodata/2/ina/PCTUG_COMB.seq:*
/cgn2_6/ptodata/2/ina/PcTUG_COMB.seq:*
                                GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                    nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-833-381-1810
US-09-241-606-1
US-09-566-921-109
US-08-447-411-1
US-08-793-126-2
US-09-132-126-2
US-09-132-231-2
US-09-132-231-107
US-09-566-921-107
US-09-66-921-107
US-09-017-947-1
US-09-017-947-1
US-09-925-442-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               682709 segs, 277475446 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                  Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                   US-10-020-095-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4535.5
1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                score:
                                                                                                                                                                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                 protein
                                                                                                                                                                                                                                                                                                                                         Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Database
                                                                                                                                                                                     Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                450087654
```

1206 AATTATAGABABATCHUYSGULLYSARISLENDENPEREARTGUNGLYTYTGURYGGULCOLLED 565 1206 AAATTATTAGAGAAAAAAAAAAAAAAAAAAAAAAAAAA	6 AACGGTTACTCCTTCAGACAGCAGAGCTTGCTGGTACAGCCATGGCAGTTAATTT 210:
2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	8 6 8 6 8 6 8 6 8
66 GIGGLARDGCTGTGAGGAAGTCTCTTAGGATCTCTGGACCGCCTGCTCC 125 556 IleVilly WilhlatalasplysSerialbancwcksahlscrashsstle 605 126 ATHORTOGAAAATCTGACCTTGACAAAGTTGAATCTGATTGAATCTCTTAATGAATTTAGGCATG 126 ATHORTOGAAAATCTGACCTTGACAAAGTTGAATCTGATTGAAATGATATTAGGCATG 126 ATHORTOGAAAATCTGACCTTGAAAAGTTGAATCTGACAAAGAGATATTATTAGGCATG 126 ATHORTOGAAAATCTGACCTTGAAAAGTTGAATCTGACAAAGAGATATTATTAGGCATG 126 ATHORTOGAAAATCTGACCTTGAAAAGTTGAATCTGACAAAAGAGATATTATTAGGCATG 126 ATHORTOGAAAAATCTAGACATTATAGAAACTTAAAAAGAAAAAGAAAAAAGAAAAAAAA	906 ACCCAGATGATTTTAGTAAAGGCTGAAGGATAGAAAATCATATTCACAATCCATCTTA 965 866 Leuaspleuthraspasnargleuglnserthrleulysthrieuserpheserphepro 885 966 TIAGACTTGACTGACAATAGGCTACAGAGTACCCTGAAAACTTTGAGTTTCCATTTCCT 1025 886 TIAGACTTGACTGACAATAGGCTACAGAGTACCCTGAAAACTTTGAGTTTCCATTTCCT 1025 886 FPCAASHTHVAITHAGIYSerGluArgValGinleThrAlaileGlyAspValLeuGly 905 1026 CCTAATACAGTGACAGGCAGTGAAAGAGTTCAGATTGCAGATTGCAGATTCTTGGT 1085 906 ProSerileAsnGlyLeuAlaSerLeuIleArgMetProTyrGlyCysGlyGluGlnAsn 925 1086 CCTTCCATCAATGGCTTAGGCTCATTGATTCGGATGCTGTGGTGAACAGAAC 1145 926 MetileAsnPheAlaProAsnIleTyrIleLeuaspTyrLeuThrLysLysLysGlyGlieu 945 1146 ATGATAAATTTGCTCCAAATATAGTTTGGATTATCTGACTAAAAAAAA

Oy 1289 SerGlyProGlyArgSerGlyMetAlaLeuMetGluValAsnLeuLeuSerGlyPhemet 1308 2286 TCGGGCCCGGGGTGGCATCGCTCTTATGGAAGTTAACTGGCTTTATG 2345 Oy 1309 ValProSerGluAlaIleSerLeuSerGluThrValLySLySValGluTyrAspHisGly 1328 Cy 1329 LysLeuAsnLeuTyrLeuAspSerValAsnGluThrGllUTyrAspHisGly 1328 Db 2406 AAACTCAACCTCTATTTCTCGGAGGAGACAGTAAAAAGTGGAATTGTATGA 2405 1329 LysLeuAsnLeuTyrLeuAspSerValAsnGluThrGlnPheCysValAsnIleProAla 1348 Db 2406 AAACTCAACCTCTATTTAGATTCTGTAAATGAAACCCAGTTTTGTTTATTCCTGCT 2465 Oy 1349 ValArgAsnPheLysValSerAsnThrGlnAspAlaSerValSerIleValAspTyrTyr 1368 Cy 1369 GluProArgArgGlnAlaValArgSerTyrAsnSerGluValLySLCAGGATTACTAT 2525 Oy 1369 GluProArgArgGlnAlaValArgSerTyrAsnSerGluValLySLeuSerSerCysAsp 1388 Db 2526 GAGCCAAGGACAGGAGAGATTACAACTCTGAAGTCCTCCTGTGAC 2585 Oy 1389 LeuCysSerAspValGlnGlnClyCysArgProCysGluAspGlyAlaserGlySerHisHis 1408 Cy 1409 HisSerSerValllePhellePheCysPheLySLeuLeuTyrPhemetGluLeuTrpLeu 1428	8 8 8 8 8 8 8 8 8 8 8 8 8	
Sequence 1, Application US/09241606 Sequence 1, Application US/09241606 Sequence 1, Application US/09241606 SENERAL INFORMATION: GENERAL INFORMATION: APPLICANT: Tanzi, Widolph E. APPLICANT: Saunders, Dora APPLICANT: Saunders, Aleister J. TITLE OF INVENTION: Alabaimer's Disease FILE REFERENCE: 0609-4460003 FURE REFERENCE: 0609-4460003 CURRENT APPLICATION NUMBER: US/09/241,606 CURRENT FILING DATE: 1999-02-02 NUMBER OF SEQ ID NOS: 27	& & & & & & & & & & & & & & & & & & &	167 LeuIleLysAspProLysSerAsnLeuIleGlnGlnTrpLeuSerGlnGlnSerAsp 185 336 GTATACATTCAGGATCCCAAAGGAATCGCATCGCACGAGTGTTT
SEQ ID NO. 1 LENGTH: FACENCIN Ver. 2.0 LENGTH: 4577 TYPE: DNA ORGANISM: Homo sapiens FEATURE: NAME/Ker: sig_peptide LOCATION: (44)(112) FEATURE: NAME/Ker: CDS LOCATION: (44)(4468) FEATURE: NAME/Ker: (113)(4468) FEATURE: NAME/Ker: mat_peptide LOCATION: (113)(4468) US-09-241-606-1	8888888	244 LysHisLeuAsnGlyThrIleThrAlaLysTyrThrTyrGlyLysProValLysGlyAsp 263 ::: :: :::
Alignment Scores: Pred. No.: A.6e-145 Length: 4577 Score: Length: 46.20 Bercent Similarity: 46.20 Best Local Similarity: 29.06 Best Local Similarity: 29.06 Best Local Similarity: 40.20 Best Local Similarity: 29.06 Best		GluGluMetLysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSer GluGluMetLysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSer TATGAAATGAA
Oy 12 LeuLeuCysValCysThrAlaAlaLeuAlaValAlaProGlyProArgPheLeuValThr 31	ý & &	332 ThrdlylleGerArgAsnValSerThrAsnValPhePheLysGlnHisAspTyrIleIle 351

```
#223 CCAACGGGAAAATGCTTGAAAGATCTAACCATGTGAGGCGGGACAGAAGTCAGCAGCAAC 4282
                                                                                                                                                                                           LysLeuAsnLeuTyrLeuAspSerValAsnGluThrGlnPheCysValAsnIleProAla 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAGGACCAACCCAAGAA-----TTTAAGAAGCGGACCACAGTGATGGTTAAGAAC 610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LysArgIleSerValPheIleGlnThrAspLysAlaLeuTyrLysProLysGlnGluVal 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ---SerValLeuGluAlaGluGly---ValPheGluLysGlySerPheLysThrLeuThr 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LeuLeuCysValCysThrAlaAlaLeuAlaValAlaProGlyProArgPheLeuValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AlaProGly1leIleArgProGlyGlyAsnValThrIleGlyValGluLeuLeuGluHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CysProSerGlnValThrValLysAlaGluLeuLeuLysThrAlaSerAsnLeuThrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTCACTGACCTGGAGGGGGAGAATGACGTACTCCACTGTGTCGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuProSerLeuProLeuAsnSerAlaAspGlu-----IleTyrGluLeuArgVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----GCTGTCCCAAAGTCTTCATCCAATGAGGAAGTAATGTTCCTCACTGTCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               107 ThrelyArgThrelnAspGluIleLeuPheSerAsnSerThrArgLeuSerPheGluThr
                                                                                                                                                              ValargasnPhelysValSerasnThrGlnAspalaSerValSerlleValAspTyrTyr
                                                                                                                CATGICITGAITTACCTICATAAGGTGTCAAATCAGACACTGAGCTTGTICTTCACGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Loring, Jeanne F.
APPLICANT: Tingley, Debora W.
APPLICANT: Tingley, Debora W.
TITLE OF INVENTION: GENES EXPRESSED IN ALZHEIMER'S DISEASE FILE REFERENCE: PA-0024 US.
CURRENT APPLICATION NUMBER: US/09/566,921
NUMBER OF SEQ ID NOS: 138
SOFTWARE: PERL PROGram
SOFTWARE: PERL PROGram
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4792
451
266
551
286
59
                                                                                                                                                                                                                                                                                ||||||||:: | |||||||:: |||||||||| 4438
                                                                                                                                                                                                                                                        GluProArgArgGlnAlaValArgSerTyrAsnSer 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No. 6682888 369213.15
US-09-566-921-109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-020-095-4 (1-1428) x US-09-566-921-109 (1-4792)
                                                                                                                                                                                                                                                                                                                                                                                      Sequence 109, Application US/09566921
Patent No. 6682888
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7e-142
1412.00
46.14%
29.02%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                  RESULT 3
US-09-566-921-109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alignment Scores:
Pred. No.:
                                                                                                                                                              1349
                                                                      1329
                                                                                                                                                                                                                                                        1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90
                                                                                                        임
                                                                                                                                                              ò
                                                                                                                                                                                                g
                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        쉽
                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4162
                                                                                                                                                                                                                                                                                                                                                                        1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |||| ::: ||||:::||| GAGGACCTCTGCAACCAACATCGTGAAGTGGATCACGAAGCAGAAACAGCAGAATGCCCAG 3778
                                                                                                                                                                                                                                                                                                                                                                                                                      3481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGAAACCCAAGGCACCAGGGGCATTTTTACGAACCCCAGGCTCCCTCTGCTGAGGTG 3661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GluValAlaAlaTyrAlaLeuLeuSerHisPheLeuGlnPheGln-----ThrSer 1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GluGlyIlePro-----IleMetArgTrpLeuSerArgGlnArgAsnSerLeu 1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyGlyPheAlaSerThrGlnAspThrThrValAlaLeuLysAlaLeuSerGluPheAla 1195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AlaLeuMetAsnThrGluArgThrAsnIleGlnValThrValThrGlyProSerSerPro 1215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCGCCACATTTACC---AGGACTGGGAAGGCTGCACAGGTGACTATCCAGTCTTCAGGG 3895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACATTITCCAGCAAAITCCAAGIGGACAACAACAATCGCCTGTIACIGCAGCAGGICTCA 3955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                --ProMetAlaValAsnIleSerAlaAsnGlyPheGlyPheAlaIleCys 1238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TIGCCAGAGCTGCCTGGGGAATACAGCATGAAAGTGACAGGAAGAAGGATGTGTCTACCTC 4015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GinLeuAsnValValTyrAsnValLysAlaSerGlySerSerArgArgArgArgSerIle 1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ||| :::::: ||||||:::
CAGACCTCCTTGAAATACAATATT----CTC 4042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAGAAAAGGAAGATTCCCCTTTGCTTTAGGAGTGCAGACTCTGCCTCAAACTTGTGAT 4102
                                                                                                                                                                                                                                                                                                           LeualaileulleThrTyralaLeuSerSerValGlySer---ProLysAlaLysGluala 1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               crcaagrcacrraargaggaagcrgrgaagaaagacaacrcrgrgcarriggagggggggg 3601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ValSerSerGluSerLysLeuSerAspSerTrpGlnProArg-----SerLeuAspIle 1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ---ArgSerGlyMetAlaLeuMetGluValAsnLeuLeuSerGlyPheMetValProSer 1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GluAlaIleSerLeu-----SerGluThrValLysLysValGluTyrAspHisGly 1328
                             1015 ThrTrpLeuLysGlyHisGlnLysSerAsnGlyGluPheTrpAspProGlyArgVallle 1034
                                                                                                                                                                                      HisSerGluLeuGlnGlyGlyAsnLysSerProvalThrLeuThrAlaTyrIleValThr 1054
                                                                                                                                                                                                                                  AACAATGCCATAAAGGGAGGAGTAGAAGATGAAGTGACCCTCTCCGCCTATATCACCATC 3364
  CysPheLeuGluAlaAspProTyrileAspIleAspGlnAsnValLeuHisArgThrTyr 1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTGCCTTCCAACATGGCGATCGTTGATGTGAAGATGGTCTCTGGCTTCATTCCCCTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlnAsnGlnGluAlaPheAspLeuAspValAlaValLys------GluAsnLysAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAACCCAAAGCCCACACCAGCTTCCAAATCTCCCTAAGTGTCAGTTACACAGGGGGCCGC
                                                                                                                              ATATGGCTCTCCCAGAGGCAGAACAATGGCTGTTTCAGGAGCTCTGGGTCACTGCTC
                                                                                                                                                                                                                                                                              SerieuLeuGlyTyrArgLysTyrGlnProAsnIleAspValGlnGluSerIleHisPhe
                                                                                                                                                                                                                                                                                                                                                                     LeuGluSer------GluPheSerArgGlyIleSerAspAsnTyrThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Aspleudsn---HisValAspleudsnValCysThrSerPheSerGlyProGly-----
                                                                                                                                                                                                                                                                                                                                                                                                                    crecagricaeccrecaagacacacagaagaagagagaccareec--aeccarerararace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuAsnMetLeuThrTrpArgAlaGluGlnGluGlyGlyMetGlnPheTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SerProLeuAlaValValGln------
                                                                                                                                                                                                                                                                                                                              3365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4043
                                                                                                                                                                                         1035
                                                                                                                                                                                                                                  3305
                                                                                                                                                                                                                                                                                                                                                                        1075
                                                                                                                                                                                                                                                                                                                                                                                                                    3425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1312
    995
                                                                                                                                                                                                                                                                                1055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 6 8 6
8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25 de 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ob
                                                                                                                                                                                                                        P
                                                                                                                                                                                                                                                                                                                                                              55 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           b
Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           $ 8 $
                                                                                                                            g
                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                         셤
                                                                                            ò
```

397

51

457

1562 CGANGACCACATCACACTORTAY=
1.15

8 8 8 8 8 8 8 8 8 8 8 8 8 8

	- ·	
Sequence 1174, Application US, Patent No. 6500938		
RESULT 4 US-09-016-434-1174	1074 eleuGluser	
Db 4598 ACGAGGATGAGTTTC	3560 GGCCTTCTGGAGATTCCTCTCACACTCACTCACTCGTTGTCCGCAATGCCCTGTTTTG	
Qy 1368 yrgluProArgArgGlnA	5500 CANCALGUCCAIARAGGGAGGAGGAGGAGGGAGGGGAGGGGACCCICICCCGCCLAIAICACCAI 555 1054 rSer[enteng]vTvrargivsffvg]nProasn1]easnValginGluser1]eHisPh 107.	
4538	1034 eHisSerGluLeuGlnGlyGlyAsnLysSerProValThrLeuThrAlaTyrIleValTh 10	
1348	3440 CATATGGCTCTCCCAGAGGCAGAAGGACAATGGCTGTTTCAGGAGCTCTGGGTCACTGCT	
Cy 1328 1717SHEWSHIDERIYII 	Oy 1014 rThrTrpLeuLysGlyHisGlnLysSerAsnGlyGluPheTrpAspProGlyArgVall1 1034	
1220	3380 GACTITIGCCCAAGCTCGAGCCTACATCTTCATCGATGAAGCACACATTACCCAAGCCCT 3439	
1311	994 gCysPheLeuGlualaAspProTyrlleAsplleAspClnAsnValLeuHisArgThrTy 1014	
4358		
1293	976 aPheGlyAsnTyrAspProSerGlySerThrTrpLeuSerAlaPheValLeuAr 994	
4298 ATGAA	3260 TCTCAACACTGGTTACCAGAGACAGTTGAACTACAAACACTATGATGGCTCCTACAGGGCA 3319	
Oy 1275 spAspLeuAsnHis\	956 eMetArgGlnGlyTyrGlnArgGluLeuTyrGlnArgGluAspGlySerPheSerAl 976	
Db 4238 TCCCAGAAAAGGAAGAG	Db 3200 GGATTATCTAAATGAAACACAGCGGCTTCCTCCAGAGATCAAGTCCAATGGCTA 3259	
Qy 1258 leGlnAsnGlnGluAlaE	5140 GALIGECCIAIGGCIGAGGAGAAGAAAAAAAAAAAAAAAAAAA	
4211	916 gMetProTyrGlyCysGlyGluGlnAsnMetIleAsnPheAlaProAsnIleTyrIleLe 936	
101 CALIGOCAGAGCIGCCIG	3080 IGTCTCAGTTTTGGGAGACATATTAGGCTCTGCCATGCAAAACACACAAAATCTTCTCCA 3139	
1223		
4091 GGACATITICCAGCA	3024GAAGAATTATCCCTGAAACTGCCACAAATGTGGTAGAAGAATCTGCCCGAGCTTC 30	
Oy 1215 roSerProLeuAlaVal\ :::	876 rLeulysThrLeuSerPheSerPheProProAsnThrValThrGlvSerGluArgValGl	
Db 4034 GAGCACCACATITACC	OY 650 WORLD WASSETTY TSETGINGS TILE-BULGUAS DENTINAS PASIAT GLEUGINS 670 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
1195	2909 TCCTGAACACGGAAGGAAAGACACAGTCATCAAGCCTCTGTTGGTTG	
Oy 1175 euGlyGlyPheAlaSer7 :: 	841 a	
3914 cedaleaccreacci		
Oy 1159 erGluGly1lePro	832 eThrValThrAlaLeuSer	
:: :: :: Db 3857 TGGAGATGACATCCTATC	CY 812 FGIUASPGIYALATINTALLEUHDEPTOLIEATGFFORDITHISLEULFFYGIULIEFFOII 832 Db 2802ACTGTGTCCTGGGCAGTAACCCCAATGAGAAATGTGAATTT 2848	
Qy 1142 leGluValAlaAlaTyr	2762	
3797 C	797 rGlu	
DD 3/3/ IACICAGICACITARIO	2702 CATC	
1107	777 aThr	
	2642 IGTGATTCGTGGAGAGGCCTTCACACTCAAGGCCACGGTCCTAAACTACCTTCCCAAATG	
Qy 1088 rLeuAlaLeuIleThrTy	757	

```
rThrGllakspThrThrValAlaLeuLysAlaLeuSerGluPheA 1195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rleuAspSerValAsnGluThrGlnPheCysValAsnlleProA 1348
Tyrala-LeuserSerValGlySer---ProLysalaLysGlua 1107
                                                                                              rLysLeuSerAspSerTrpGlnProArg-----SerLeuAspI 1142
                                                                                                                                                                                                        rAlaLeuLeuSerHisPheLeuGlnPheGln-----Thrs 1159
                                                                                                                                                                                                                                                                                                                                                                                                                      rGluargThrAsnileGlnValThrValThrGlyProSerSerP 1215
                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTCCAAGTGGACAACAACAACGCCTGTTACTGCAGCAGGTCT 4150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MetAlaValAsnIleSerAlaAsnGlyPheGlyPheAlaIleC 1238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ITyrAsnValLysAlaSerGlySerSerArgArgArgArgSerI 1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |||||||:::
ATACAATATT------C 4237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      apheAspLeuAspValAlaValLys------GluAsnLysA 1275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ||||
grrcccctrrgcrtraggagrgcagactcrgccrcaaacrrgrg 4297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ValAspLeuAsnValCysThrSerPheSerGlyProGly---- 1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1------SerGluThrvalLysValGluTyrAspHisG 1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SCTTGAAAGATCTAAGCATGTGAGCCGGACAGAAGTCAGCAGCA 4477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ValSerAsnThrGlnAspAlaSerValSerIleValAspTyrT 1368
                                                                 rTrpArgAlaGluGluGlyGlyMetGlnPheTrp----- 1124
                                                                                                                                                             ------IleMetArgTrpLeuSerArgGlnArgAsnSerL 1175
                                                                                                                                                                                                                                                                                                     lvalgln----- 1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               chlaLeuMetGluValAsnLeuLeuSerGlyPheMetValProS 1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AlaValArgSerTyrAshSer 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ||||:::
|GCAATTGCTGAGTACAATGCT 4635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3/09016434
```

```
429 LysileGluPhePro-----
                                                                                                                                  476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    893
                                                       127
                                                                                                                                                            167
                                                                                                                                                                                                                                                                                           959
                                                                                                                                                                                                                                                                                                                                                                                                                         264
                                                                                                                                                                                                                                                                                                                                                                                                                                                  833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                           원
                                                                                                         à
                                                                                                                                                           ö
                                                                                                                                                                                    엄
                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                            임
                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  146 Greecerecrecreacaer--- Gagaceaergagaagedergrerererierdagerae 202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuProSerLeuProLeuAsnSerAlaAspGlu-----IleTyrGluLeuArgVal 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            263 TTCACTGACCTGGAGGGGGGAGAATGACGTACTCCACTGTGTCGCCTTC----- 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ---SerValleuGluAlaGluGly---ValPheGluLysGlySerPheLysThrLeuThr 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LeuLeuCysValCysThrAlaAlaLeuAlaValAlaProGlyProArgPheLeuValThr 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      32 AlaProGlyIleIleArgProGlyGlyAsnValThrIleGlyValGluLeuLeuGluHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CysProSerGlnValThrValLysAlaGluLeuLeuLysThrAlaSerAsnLeuThrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               203 crgaargagagagrgacrgraaggcrrccrragagrcrgrcagggaaakcaggaggcrc
    APPLICANT: Janice Au-Young
APPLICANT: Jeffrey J. Seilhamer
TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF SIGNALING
TITLE OF INVENTION: PATHWAY GENE EXPRESSION
NUMBER OF SEQUENCES: 1490
CORRESPENDENCE ADDRESS:
ADDRESSE: INCYTE PHARMACEUTICALS, INC.
STREET: 3174 PORTER DRIVE
CITY: PALO ALTO
STATE: CALLFORNIA
                                                                                                                                                                                                            SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-020-095-4 (1-1428) x US-09-016-434-1174 (1-4079)
                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA-0002 US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
                                                                                                                                                                                                                                         US/09/016,434
                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
Janice Au-Young
                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (650) 845-4166
INFORMATION FOR SEQ ID NO: 1174:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6.71e-135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1346.50
46.66%
29.76%
18.32%
                                                                                                                                                                                                                                                                                                                                                                                                                                                   4079 base pairs
                                                                                                                                                                                                                                       APPLICATION NUMBER: US
FILING DATE: HEREWITH
CLASSIPICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                      HEREWITH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENBANK
CLONE: 9177869
US-09-016-434-1174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                         FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IMMEDIATE SOURCE
                                                                                                                                     USA
                                                                                                                                                94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores:
                                                                                                                                     COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
```

```
1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1133 cccrircririggg------CAG 1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           372 ValThrArgAlaAspGlyAsnGlnLeuThrLeuGluGluArgArgAsnAsnValValIle 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ------IleLeuGluAspSer 438
                                                365 AAAGGACCAACCAAGAA-----TTTAAGAAGCGGACCACAGTGATGGTTAAGAAC 415
                                                                                                                                             332 ThrGlylleSerArgAsnValSerThrAsnValPhePheLysGlnHisAspTyrIleIle 351
107 ThrGlyArgThrGlnAspGluIleLeuPheSerAsnSerThrArgLeuSerPheGluThr 126
                                                                                                                                                                                                                       147 iyspheargilevalThrLeuPheSerAspPheLysProTyrLysThrSerLeuAsnIle 166
                                                                                                                                                                                                                                                                                                                                                                       ---SerPheTrpGlyLys 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGGCTTTCTGTGAGAAATTCAGTGGACAGCTAAACAGCCATGGCTGCTTCTATCAGCAA 952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   277 LystysAsnileThrLysThrPheLysIleAsnGlySerAlaAsnPheSerPheAsnAsp 296
                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuGlyVallleSerLysThrPheGlnLeuSerSerHisProlleLeuGlyAspTrpSer 205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LysHisLeuAsnGlyThrIleThrAlaLysTyrThrTyrGlyLysProValLysGlyAsp 263
                                                                                                                                                                                                                                                                Leu---ileLysAspProLysSerAsnLeulleGlnGlnTrpLeuSerGlnGlnSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SAAGAGATGAATGTATCAGTGTGGCCTATACACATATGGGAAGCCTGTCCCTGGACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          297 GluGluMetLysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      317 SerProGlyProvalGluIleLeuThr------ThrValThrGluSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          352 GluphePheAspTyrThrThrValLeuLysProSerLeuAsnPheThrAlaThrValLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1148 Grecectagracarecaaagecercetaracea-----Aaraaagecare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               392 ThrValThrGlnArgAsnTyrThrGluTyrTrpSerGlySerAsnSerGlyAsnGlnLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             596 gerédécercaageaarrrrerrirececiéricareagécerrecagécireracaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       206 IleGlnValGlnValAsnAsp-----GlnThrTyrTyrGlnSerPheGlnValSerGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              224 TyrvalLeuProLysPheGluValThrLeuGlnThrProLeuTyrCysSerMetAsnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GIGACIGIGAGCATITGCAGAAAGTATAGTGACGCTTCCGACTGCCACGGTGAAGATTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      412 MetGluAlaValGln---LysileAsnTyrThr-----ValProGlnSerGlyThrPhe
                                                                                                                   LysArgileSerValPheileGinThrAspLysAlaLeuTyrLysProLysGinGluVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ValThrLeuThrPheLeuProLeu-----------
```

	738 ThrProValGluLeuGlnAlaPheGlnPr 	758 ValileArgGlyGluGluPheAlaLeuGl 	778 ThrGluValLysVall1elleGluLysSe :: 2507 ATCCGGGTCAGTGTGCAGCTGGAAGCTC	798 Glu	813 GluAspGlyAlaThrValLeuPheProIl :: :: 2606ACTGTGTCCTGGGCAGT	833 ThrValThrAlaLeuSer	842	857 GlulysSerTyrSerGlnSerIleLeuLer 2774 GAGAAGGAAACAACATTCAACTCCCTACT	877 LeulysThrLeuSerPheSerPheProPro ::: 2828GAAGAATTATCCCTGAAACTGCCACC	897 IleThralaileGlyaspValLeuGlyPro ::::::::::::::::::::::::::::::::::::	917 MetErotyrGlycysGlyGluGlnAsnMet	937 ASPTYTLEUThriysLysLysGlnLeuthn	957 MetargGlnGlyTyrGlnArgGluLeuLeu :::a:A	977 PheGlyAsnTyrAspProSerGly	995 CygPheLeuGluAlaAspProTyrIleAsg ::: 3185 ACTTTTGCCCAAGCTCGAGCTACATCTTG	1015 ThrTrpLeuLysGlyHisGlnLysSerAsr 	1035 HisSerGluLeuGlnGlyGlyAsnLysSer :::::: 3305 AACAATGCCATAAAGGGAGGAGTAGAAGAI	1055 SerLeuLeuGlyTyrArgLysTyrGlnPrc . ::: 3365 GCCCTTCTGGAGATTCCTCTCACAGTCACT	The state of the s
g G	රු අ	<i>Х</i> О 9 <u>0</u>	SP Q	S P	상 원	çy q	& g	<i>∂</i> 8	상 음	& 8	& g	Qy Dp	yo, da	ර් අ	SP G	6 S	oy oy	\$ B	
)	Oy . 439 SerGlubeuGlnbeuLysAlaTyrPhebeuGlySerLysSerSerMetAlaValHisSer 458	459 LeuPheLysSerProSerLysThrTyrIleGlnLeuLysThrArgAspGluAsnIleLys 478	479 ValGlySerProPheGluLeuValValSerGlyAsnLy8Arg	493 LeulysGluLeuSerTyrMetValValSerArgGlyGlnLeuValAlaValGly	511Met Phe SerLeurhr 1571 ACTORIGATOR THE ACTORIGATOR AND ACTORIGATOR AC	521	541 GluileileSerAspValLeuLysileProValGinLeuValPheLysAsnLysileLys :::::		581 ThrGlnProAspSerIleValGlyIleValAlaValAspLysSerValAsnLeuwetAsn 1811 GCTCCTCAGTCGTTGTGCTCTTGTGTGTGTGTGTGTGTGTGTG	601 AlaSerAspAspIleThrMetGluAsnValValHisGluLeuGluLeuTyrAsnThr 1::- 1 1868 CCTGATGCTGAACCTCTCGGGTTTAACAACCTGATAACAGAAAAAGAAACTAACAAAAAAAA	620 GlyTyrTyrLeuGlyMet	626 PhewetasnSer	632 ValPheGlnGluCysGlyLeuTrpValLeuThrAspAlaAsnLeuThrLysAspTyrIle 10.100	652 AspGlyValTyrAspAsnAlaGluTyr		681 GlySerSerProHisValArglysHisPheProGluThrTxplleTrpLeu	698 AspThrashMetGlyTyrarglleTyrGlnGluPheGluValThrValProAspSerile	718	
Ď	දු පු	දු පු	8 %	පි පි	8 6	8 & 8	8 8	8 & 8	ි රි සි	8 8	8 8	8 %	දු ද	જે જે	3 8 8	3 6 8	3 8 8	3 8	

SlulleThrilePheAsnTyrLeuLysAspAla 777
::: | | | | | | | | | |
vAGGCCACGGTCCTAAACTACCTTCCCAAATGC 2506 ACGGGCGGCAA----- 2605 TGTCTGAAGATGCTGGACTTGGTATCTCTTCC 2389 :: |||| TAACCCCAAAGTCATTAGGAAATGTGAATTTC 2653 AAGAGCTGTGTGGGACTGAGGTGCCTTCAGTT 2713 hrGlimetIleLeuValLysAlaGluGlyIle 856
::: :::||||||::: ||||||::
TCAAGCCTCTGTTGGTTGAACCTGAAGGACTA 2773 etlleAsnPheAlaProAsnIleTyrIleLeu 936 || | | ::: | TTTGTCCATCAGGTGGTGAGGTTTCT---- 2827 CAAATGTGGTAGAAGAATCTGCCCGAGCTTCT 2884 CTGCCATGCAAACACACAAAATCTTCTCCAG 2944 hrAspAsnLeuLysGluLysAlaLeuSerPhe 956 euTyrGlnArgGluAspGlySerPheSerAla 976 1ySerThrTrpLeuSerAlaPheValLeuArg 994 hrglyHisglnGlnThrLeuLeuValProSer 812 leArgProThrHisLeuGlyGluIleProIle 832 spileAspGlnAsnValLeuHisArgThrTyr 1014 ||||||||::: |CATCGATGAAGCACATTACCCAAGCCCTC 3244 snGlyGluPheTrpAspProGlyArgValile 1034 |||||| :::::: erAspLysPheAspIleLeuMetThrSerSer 797 euAspleuThrAspAsnArgLeuGlnSerThr 876 ------ProThrAla 841 roAsnThrvalThrGlySerGluArgValGln 896 roSerIleAsnGlyLeuAlaSerLeuIleArg 916 erProValThrieuThrAlaTyrileValThr 1054 roAsnIleAspValGlnGluSerIleHisPhe 1074 roPhePhellePheleuAsnLeuProTyrSer

```
SerSerHisProlle------
                                                                                                                                                                                                                                  9..4961
                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                    NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                          Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                 US-08-447-411-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      501
                                                                                                                                                                                                                                                                                                                                            Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ਨ
                                                                                                                                                         1142
                                                                                                                                                                                                                                                               GluGlyIlePro------IleMetArgTrpLeuSerArgGlnArgAsnSerLeu 1175
                                                                                                                                                                                                                                                                                                                 1176 GlyGlypheAlaSerThrGlnAspThrThrValAlaLeuLysAlaLeuSerGluPheAla 1195
                                                                                                                                                                                                                                                                                                                                  ecceccacarrracc---adacregaagecrecacagerdacrarcagriciticage 3895
                                                                                                                                                                                                                                                                                                                                                                                                                          1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                   3896 ACATTTCCAGCAAATTCCAAGTGGACAACAATCGCCTGTTACTGCAGCAGGTCTCA 3955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3956 TTGCCAGAGCTGCCTGGGGAATACAGCATGAAAGTGACAGGAGAAGGATGTGTCTACCTC 4015
                                                                                                                              3601
                                                                                                                                                                                                         GluvalalalaryralaLeuLeuSerHisPheLeuGlnPheGln------ThrSer 1159
                                                                                                                                                                                                                                     3718
                                                                                                                                                                                                                                                                              3481
                                                                                                  LenAsnMetLeuThrTrpArgAlaGluGluGlyGlyMetGlnPheTrp----- 1124
                                                                                                                                                                              3602 CAGAAACCCAAGGCACCAGTGGGGCATTTTACGAACCCCAGGCTCCCTCTGCTGAGGTG 3661
                                               1089 LeuAlaLeulleThrTyrAlaLeuSerSerValGlySer---ProLysAlaLysGluAla 1107
                                                                                                                                                                                                                                                                                                                                                                      AlaLeuMetAsnThrGluArgThrAsnIleGlnValThrValThrGlyProSerSerPro
                                                                                                                      1125 ValSerSerGluSerLysLeuSerAspSerTrpGlnProArg-----SerLeuAspIle
                                                                                                                                                                                                                          3482 AAAGCACTGCCCTATGCTTTGCCCTGGCAGGTAACCAGGACAAGAAGAAGTA
-GluPheSerArgGlyIleSerAspAsnTyrThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1, Application US/08447411
Parent No. 5773243
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: FRITINGER, DAVID C.
APPLICANT: BREDEHORST, REINHARD
APPLICANT: VOGEL, CARL WILHELM
TITLE OF INVENTION: DNA ENCODING COBRA C3, CVF1, AND CVF2
NUMBER OF SEQUENCES: 81
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, ADDRESSEE: P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: P.C.
STREET: 1755 S. Jefferson Davis Highway, Suite 400
CITY: Arilington
COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlnLeuAsnValValTyrAsnVal 1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGACCTCCTTGAATACAATATT 4039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DATA:
2: US/08/447,411
                                                                                                                                                                                                                                                                                                                                                                                                                              SerProLeuAlaValValGln-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DA APPLICATION NUMBER:
  1075 LeuGluSer-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-447-411-1
                                                                                                                                                                                                                                                                                                                                                                                                     3839
                                                                                                                                                                                                                                                                                                                                                                                                                               1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4016
                                                                                                         1108
                                                                                                                                                                                                               1143
                                                                                                                                                                                                                                                                    1160
                                                                                                                                                                                                                                                                                                                                                  3779
                                                                                                                                                                                                                                                                                                                                                                           1196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                          셤
                                                                          g
                                                                                                      ò
                                                                                                                                 셤
                                                                                                                                                            8
                                                                                                                                                                                   g
                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                      à
```

```
176 ileGlnGlnTrpLeuSerGlnGlnSerAspLeuGlyValileSerLysThrPheGlnLeu 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96 AsnSerAlaAspGluIleTyrGluLeuArgvajThrGlyArgThrGlnAspGluIleLeu 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     291 AAITAAGGACTCCAAGCAAAATCAGTATGTGGTTGTGAAAGTAGTGGTCCTCAAGTGGCA 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AsplysAlaLeuTyrLysProLysGlnGluValLysPheArgIleValThrLeuPheSer 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          156 AspPheLysProTyrLysThrSerLeuAsnIleLeuIleLysAspProLysSerAsnLeu 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                66 -----TCCCACGGGGCTCTCTATACCCTCATCACCCTGCTGTTTTGCGAACAGACACA 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60 Ala------GluLeuLeuLysThrAlaSerAsnLeuThrValSerValLeuGlu 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240 GCAGGAAGCATGTTTGTCACT-----CCAACTATAAAGGTTCCTGCAAAAGAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MetGlnGlyProProteuLeuThrAlaAlaHisLeuLeuCysValCysThrAlaAlaLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41 AsnValThrileGlyValGluLeuLeu---GluHisCysProSerGlnValThrValLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     116 PheSerAsnSerThrArgLeuSerPheGluThrLysArglleSerValPheIleGlnThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21 AlaValAlaProGlyProArgPheLeuValThrAlaProGlyIleIleArgProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20 GAAGAGCAAATTTTGGTGGAGGCCCATGGAGACAGTACTCCAAAATCGCTTGACATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76 AlaGluGlyValPheGluLysGlySerPheLysThrLeuThrLeuProSerLeuProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-020-095-4 (1-1428) x US-08-447-411-1 (1-5211)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches:
Indels:
                                                                                                                1126-101-0
      US 08/043,747
APPLICATION NUMBER: US 08/043,747
FILING DATE: 07-APR-1993
ATTORNEY/AGENT INFORMATION:
NAME: Oblon, No. 5773243nan F.
REGISTRATION NUMBER: 24,618
REFERENCE/DOCKET NUMBER: 1126-101
TELEPHONE: (703) 413-3000
TELEPAN: (703) 413-220
TELEFAX: 248855 OPAT UR
INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS:
LENGTH: 5211 base pairs
TYPE: nucleic acid
STRANDEDNESS: unknown
                                                                                                                                                                                                                                                                                                                                TOPOLOGY: unknown
MOLECULE TYPE: DNA (genomic)
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3.1e-94
973.50
40.56%
23.66%
13.25%
```

239

290

95

1524 GT 535 TV		553			583 Pr	1737 CC	603 AB	1797 TA	623 Le		643 AB 1917 AG	647	1977 AG	648	2037 GA	658 Al	2097 TG	671	2157 TG	674	2217 GC	44 069	2277 TT	703 T	2337 AT	719 Se	2382 AC	739	2418 AA	752 Le	2478 CT	772 A8	2538 AP
g &	7 A	ò f	3 8	g 43	δ	qq	λŏ	qo	8 8	g (දු දු	ò	- qa	ò	Ор	ò	q _Q	δλ	QQ	à	qq	ò	QQ	δλ	q	ò	qq	ò	ΟD	δλ	qд	ò	QQ .
	SO 10			m ,			-		•		Φ.	«	Φ.									2				n		3 6)	23	4	_
AGAGCTTGTC 58'	-AspGlnThrTyrTyr 216	uGlnThrPro 236	GCAACCATCA 707		CACIGCAAGG 104				rAsnGlyLeu 309	CAATCAGCIT 941	rValThrGlu 329	-grażcagratażczska 983									Ginsergiy 426				OSETLYSING 466		-Frommestu 484						
 AGTICTAAACCAGTCAAICCAICAGGCTCGATCCGGCCTTACAAITTACCAGAGCTIGIC	LeuGlyAspTrpSerIleGlnValGlnValAsnAspGlnThrTyrTyr	GlnSerPheGlnValSerGluTyrValLeuProLysPheGluValThrLeuGlnThrPro	GCATATITIGAIGICAGAGATATGIGITIACCAAGCTITGAAGICCGICIGCAACCAICA	euTyrCysSerMetAsnSerLysHisLeuAsnGlyThrIleThrAlaLys	GATANGTITITITATATATATAGGGAAT—AAAAAATTITICAGGGGGGGGGAATAAGGGAAAAGAAAAAAAAAA		ThrIwsThrPhelwelleAenGlvSer	GATGATGCTAAAAAGAGTATTCCAGACTCACCAGAGAATTCCGATTATTGATGGAGAT	AlaAsnPheSerPheAsnAspGluGluMetLysAsnValMetAspSerSerAsnGlyLeu	GGGGAAGCAACACTAAAAAGAGATACACTACGTTCCCGATTTCAAGATCTCAATCAGCTT	SerGluTyrLeuAspLeuSerSerProGlyProValGluIleLeuThrThrValThrGlu :::	GTAÄCÄGT	SerValThrGlylleSerArgAsnValSerThrAsnValPhePheLysGlnHisAspTyr 	TCAGGCAGTGATATGGTAGTGACTGAGCAAGGCGGCATTCATATTGTGACATCTCCCTAT		CAGATCTACTICACAAAACCCCCCAAATATTTCAAGCCAGGAATGCCATATGAACTGACG	VallysValThrargalaAspolyAshGinLeuthrLeuGludrgArgAshAshVal - - - - - - - - - - - - - - - - - -		Valizeinrvalinroinargasniyrinroiniyrirpseroiyserasnseroiyasn 			ייין ביינטייטיים	INTERNAL PROTECTION TO THE PROTECTION OF THE PRO	ייייייייייייייייייייייייייייייייייייייי	PDeLeuGlyserLyssersermerAlavalHisserLeurneLysserFroserLysinr 	95455	1 6 6					roLysAlaCysVa	
3GCTCGATCCGGC	/alGlnValAsn- ::: GCCAATATGAAC	/alleuProLysP	STGTTACCAAGCT	AsnSerLysHisL	TAIPARAMIII	17 AS PORT 111 E 	6144L		3luMetLysAsnV	ACACTACGTTCCC	ProGlyProValG	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	/alSerThrAsnV	3AGCAAGGCGGCA'	ThrValLeuLysP	AAATATTTCAAGC	AsnGinLeuThrL	CACCAGCIGCC-	YrInrelulyrI ::::: Xamement	AITCIGAGE	GINLYSMetGIVALAVAIGINLYSIIEASNIYFINFVAIPTO 		STERGER TORSE		AlavalHisserL	strateger I act	TYFILEGINLEULYSINFARGASDGIUASNIIELYSVAIGIYSEF 	CAGAGAI LAAGO	100 100 10			AsnSerTrpThrP	<u> </u>
::: GTCAATCCATCA(LeuGlyAspTrpSerIleGlnValGlnValAsn- GTTTGGGAAGGCTGTGGCCAAATATGAAC	ValSerGluTyr	GTCAGAGAATATC	TyrCysSerMet/	TACALLGALGGG	17	LysAsnTle	::: ::: 	PheAsnAspGlu(CTAAAAAGAGATA	AspLeuSerSer 	crgrargrarcr	IleSerArgAsn'	ATGGTAGTGACT	PheAspTyrThr	ACAAAAACCCCC	ValbysValthrArgAlaAspGlyAsnGlnLeuthr 	AACCCIGAIGGC.	inreinargasm:	GIGCCAGIGGIAICAGAGGCCAIICAIICIGAG	AtavalGinLys.				Lyssersermer 	AMGICCAIGACAC	Lystnrargaspo	GCCALIACALCIA		Claim control	varserargerycimbeuvarararararybys :::::::::: ::::: TTGAATAAAGGGAAGATTTTCAAGGTTGGCAGG	LeuThrProGlu	Ξ
 AGTTCTAAACCA	LeuGlyAsp AGTTTTGGGACA	GlnSerPheGln	GCATATTTGAT		GALAMGILLCIL					GGGGAAGCAACA		GTTGGTCATACTCTGTATGTATĊT	SerValThrGly	TCAGGCAGTGAT		CAGATCTACTTC	Vallysvalthr	GIGIAIGIIACC	ValleThrval												TTGAATAAGGG		
528	201	217	648	237	7.08	765	274	822	290	882	310	942	330	984	350	1044	370	1104	טענ. נגיי	1143	410	1 0 0	1230	n 1	444.7	107	467	# # C T	4041	5 6	1464	515	
qa	දු දු	λõ	qq	ઠે ઇ	a è	ž 43	ò	G G	ò	qq	δλ	qa	ò	qu	ò i	go (ð 1	9 8	ठें त	an ·	Š	3 8	Si E	3 6	දි ද්	a (j 1	3 6	Š €	3 ;	<u> </u>	ò	i

1524	GTGACCATGAATCTGCATATCACTCCAGATCTCCATCCCTTCCTT
535	TyrileGluAspAspGlyGluIleIleSerAspValLeuLysIleProValGln 552
553	
1644	TGCATGGGAACGTTGGTTGTGAAGGAGGGTCTTCCAGAG
563	<pre>TrpSerLysValLysAlaGluproSerGluLysValSerLeuArgIleSerValThrGln 582 ::: ::: :::::::AAGCCAGGAGCTGCAATGAAAATCAAATTGGAAGGGGAT 1736</pre>
583	ProAspSerIleVa ::: cCAGGTGCTCGGGT
603	AsnAspileThrMetGluAsnValValHisGluLeuGluLeuTyrAsnThrGlyTyrTyr 622
623	
643	
1917	AGCACTÀÀTCTCAACACAACAGAGATCAGCTGCAAAGTGTCCTCAGCCTGCAAATCGG
647	
1977	AGGCGTCGCAGTTCTGTTTTGCTGCTTGACAGCAAAGCAAGC
548	GATCAAGGCCTGCGTAAATGCTGTAAAATGCATGCATGAGAAGCCCCATGGGG
658	AlaGluTyrAlaGluArgPheMetGluGluAsnGluGly
671	
2157	TGTTGTCA
674	AspleHisAspPheSerLeuGlySerSerProHisValArgLysHis 689
690	PheProGluThrTrp1leTrpLeu
70	TyrArgileTyrGlnGluPheGluValThrValProAspSerlleThr 718
2337	ATTTCAAGCAAGA
719	SerTrpValAlaThrGl ::: ACCTGG
739	AAAGGGATCTC
752	
772	AsnTyrLeuLysAspAlaThrGluValLysValIleIleGluLysSerAspLysPheAsp 791

RESULT 6

≽ •	3630	erlysleusetabberiipdinktohigsetuempileusuvarhiahaniitiitii
Z	148	uLe -
م	3675 GCCT	TETTGGCCCTGCTGAAAATGAAGAAATTTGCTGAGGTCGGTC
	168	11
ρ ;	3735 CTGA	3 7 7 7
<u>ب</u> ج	795	385
<u>≻</u> ,	1207 ValT	ValThrValThrGlyProSerSerProSerPro
ą	3855 ATTT	 CTATTAAACTGCCAGAACGAGAAGTACCTGAAAGGTACAGCATTAATGATAGAAAT 3914
≿	220	23
ā	3915 GCTG	397
2 ح	1232 GlyP	GlyPheGlyPheAlaileCysGlnLeuAsnValValTyrAsnValLysAlaSerGlySer 1251
ì >	25.2	laVal 127
, <u>a</u>	026 A	
≱:	1271	LysGluAsnLysAspAspLeuAsnHisValAspLeuAsnVal 1284
á	4077 AACG	AACGTCGAATTGAACTTAAAACAGGCAAGGCAAGGCAAG
<u></u>	1285 CysT	CysThrSerPheSerGlyProGlyArgSerGlyMetAlaLeuMetGluValAsnLeuLeu 1304
q	4137 TGCA	chaggrancigggagaaginganichacaangacaanaangananicmigcig 4196
~	1305 SerG	131
д	4197 ACTG	ditititicccigaigcidaagaccitaaaaggcitictaacggagiggacagatac 4256
<u> </u>	320	GlyLysLeuAsnLeuTyrLeu 133
Q	4257 ATCT	STIGICATITACITA 431
<u>≻</u>	335	io t
Д	17	CACAAGCATTTTGAA 437
ء ج	1354 Vals 4377 GTTG	ValSerAsnThrGinAspAlaSerValSerIleValAspYvTyrIqIuProArgArgGin 1373
	374	alargserTvranserGluValLvsLeuSerSerCvsAspLeuCysSerAspVal 1393
, д	3.7	T 449
<u>⊁</u>	1394 GlnG	lycysArgProCysGluAspGlyAlaSerGlySerHisHisHis 1409
ā	4497 AACA	 AACATTTGCCGATGTGCAGAAGAACCTGTTCCTTGCTCAACCAGCAGAAAAGATTGAT 4556
₽	1410	
۾	4557 CTTCAA	AATTACGAATTCAAAAAGCCTGCGCGAAAATGTGGATTATGTCTACAAAACCAAG 4616
*	1420 LeuL	Leuleu
Д	4617 CTGC	ticgaatagaagaaaagatggtaatgatatctatttcatggatgtt 4667

```
::: :::
AGCGGGGATCCCCATCGTGACCTCTCCCTACCAGTCACCAAGACACCCAAGTAC 1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ------A¢¢cgTCATCTTGCACTCAGGCAGTGACATGGTGCAGGCAGACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1139 TTCAAACCAGGAATGCCCTTTGACCTCATGGTGTTCGTGACGAACCCTGATGGCTCTCCA 1198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ------CCCTTGAGCATCACGGTGCGCACGAAGAAGCAGGAGCTCTCG 1345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSerSerProGly 319
                                                                                                                                       143 LysGlnGluValLysPheArgIleValThrLeuPheSerAspPheLysProTyrLysThr 162
                                                                                                                                                                                                                                                                                                                                                                           280 IleThrLysThrPheLysIleAsnGlySerAlaAsnPheSerPheAsnAspGluGluMet 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            320 ProvalGlulleLeuThrThrValThrGluSerValThrGlyIleSerArgAsnValSer 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----GlnLeuThrLeuGluGluArgArgAsnAsnValValIleThrValThrGlnArg 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          397 AsnTyrThrGluTyrTrpSerGlySerAsnSerGlyAsnGlnLysMetGluAlaValGln 416
                                                                                                      -------ricarcadadadadadacarcracaccci 472
                                                                                                                                                                                                                                                                              182 GlnGlnSerAspLeuGlyvalIleSerLysThrPheGlnLeuSerSerHisProIleLeu 201
                                                                                                                                                                                                                                                                                                                                                GlyAspTrpSerIleGlnValGlnValAsnAsp------GlnThrTyrTyrGlnSer 218
                                                                                                                                                                                                                                                                                                                                                                                                                      PheGlnValSerGluTyrValLeuProLysPheGluValThrLeuGln-----ThrPro 236
                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuTyrCysSerMetAsnSerLysHisLeuAsnGlyThrIleThrAlaLysTyrThrTyr 256
   GluLeuArgValThrGlyArgThrGlnAspGluIleLeuPheSerAsnSerThrArgLeu 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ::: | | | ::: | :: | | | ::: | | | ::: | | | ::: | | | | ::: | | | | ::: | | | | ::: | | | | ::: | | | | | :::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              593 TCTCAGAACCAGCTTGGCGTCTTGCCCTTGTCTTGGGACATTCCGGAACTCGTCAACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGAGCCGGAAGGTACTGCTGGACGGGGTGCAGAACCCCCGAGCAGAAGACCTGGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrAsnValPhePheLysGlnHisAspTyrIleIleGluPhePheAspTyrThrThrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeulysProSerLeuAsnPheThrAlaThrValLysValThrArgAlaAspGlyAsn---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LysileAsnTyrThrValProGlnSerGlyThrPheLysileGluPheProileLeuGlu
                                                                       SerPheGluThrLysArgIleSerValPheIleGlnThrAspLysAlaLeuTyrLysPro
                                                                                                                                                                          gecrecacadrirereraredarierreacegecaaagergeracegecege
                                                                                                                                                                                                                                 -----LeuProleuSerPheTrpGlyLysLysAsn
                                                                                                                                                                                                             SerbeudsnileLeulleLysAspProLysSerAsnLeulleGlnGln---TrpLeuSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyLysProValLysGlyAspValThrLeuThrPhe-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           401 GAGAAGGTGGTGGTCAGCCTGCAGAGCGGGTACCTC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .013 AAGICTTTGTACGTGTCTGCC-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                          713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                       123
                                                                                                        440
                                                                                                                                                                            473
                                                                                                                                                                                                               163
                                                                                                                                                                                                                                                                                                                                                     202
                                                                                                                                                                                                                                                                                                                                                                                                                         219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1304
                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                               g
                                                              \delta
                                                                                                 g
                                                                                                                                       ℅
                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGCGCAACAAGTTCGTGACCGTGCAGGCC-----ACCTTCGGGACCCAAGTGGTG 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGTCCCAGCCTGCTG------CTCCTGCTACTAACCCACCTCCCCTGGCTCTG 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACTICCCAGGCAAAAACIAGIGCIGICCAGIGAGAAGACIGIGCIGCCCCGCCACC 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             190 paccacargegcalcercacerreacearceaeceaecaegegaerreagereaeaaaaae 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlySerPhelysThrLeuThrLeuProSerLeuProLeuAsnSerAlaAspGluIleTyr 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        --CysProSerGlnValThrValLysAlaGluLeuLeu 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            64 LysThrAlaSerAsnLeuThrValSerVal---LeuGluAlaGluGlyValPheGluLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyProProLeuLeuThrAlaAlaHisLeuLeuCysValCysThrAlaAlaLeuAlaVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23 AlaProGlyProArgPheLeuValThrAlaProGlyIlelleArg
                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUW TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/793,126
FILING DATE: US-FEB-1997
CLASSIFICATION: 424
ATTONNEY/AGENT INFORMATION:
NAME: BARKET HOLIGE L.
REGISTRATION NUMBER: 31,321
REFERENCE/POCKET NUMBER: 31,321
RELEPHONE: (617) 526-6000
TELEPHONE: (617) 526-6000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5056
381
287
609
358
63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative:
Mismatches:
Indels:
                                                                                          C3 PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JS-10-020-095-4 (1-1428) x US-08-793-126-2 (1-5056)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
Matches:
Sequence 2, Application US/08793126
Patent No. 5849297
GENERAL INFORMATION:
APPLICANT: Harrison, Richard Alexander
TITLE OF INVENTION: MODIFIED HUMAN G3 PRO;
NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
ADDRESSEE: HALE AND DORR LLP
STREET: 60 State Street
CITY: Boston
STATE: MA
                                                                                                                                                                                                               United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2e-89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      931.00
40.88%
23.32%
12.67%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GluHis-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: li
MOLECULE TYPE:
                                                                                                                                                                                                             COUNTRY: UN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-793-126-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
```

: Db 2375 GAGGACTTGAAAGAGCCACCGAAAAATGGAA	Qy 707 GlnGluPheGluValThrValProAspSerI ::: :: Db 2420ATGAATATATTTTGAAAGACTCCA	Qy 727 IleSerGluAspLeuGlyLeuGlyLeuThrT	Qy 747 ProPhePheIlePheLeuAsnLeuProTyrS	Qy 767 GlulleThrIlePheAsnTyrLeuLysAspA ::::: ::	Qy 786LysSerAspLysPheAsplleLeuMetT ::	Qy 805 GlnGlnThrLeuLeuValProSerGluAspG	825 2756	Qy 843 AspAlaValThrGlnMetIleLeuValLysA	Qy 863 SerIleLeuLeuAspLeuThrAspAsnArgL	Qy 881 SerPheSerPheDroProAsnThrVal Db 2930GACATCCCACCTGCAGACCTCAGTG	Qy 895ValGlnIleThrAlaileGiyA :: :: :: ::	911	Db 3044 CGGCTGAAGCACCTCATTGTGACCCCTCGG Qy 930 AlaProAsnileTyrileLeuAspTyrLeuT	Db 3104 ACGCCACGGTCATCGCTGTGCATTACTTGC	3164		Qy 987 TrpLeuSerAlaPheValleuArgCysPheL	Qy 1007 GlnAsnValLeuHisArgThrTyrThrTrpL Db 3338 TCCCAAGTCCTCTGCGGGGCTGTTAAATGGC	Qy 1026 GlupheTrpAspProGlyArgVallleHisS
437 AspSerSerGluLeuGlnLeuLysAlaTyrPheLeuGlySerLysSerSerMetAlaVal 456 :::::::::::::::::::::::::::::::::::	HisSerLeuPheLysSerProSerLysThrTyrIleGlnLeuLysThr	CCCTACAGGCACCGTGGGCAACTCCCAACAATTACCTGCATCTCTCTC	LYSAIGHEULYSGIULEUSETTYMETVAIVAISETTECICCIGCGAAIGGACCGCGCCCCACGAG LYSAIGLEULYSGIULEUSETTYMETVAIVAISETAYGGIYGINLEUVAIAlaVaIGIY	GCCAAGATCCGCTACTACCTGATCATGAACAAGGGCTGTTGAAGGGCGGA LysGlnasnSerThrmetPheSerLeuThrProGluasnSer ::: ::::::::::::::::::::::::::::::::	CGCCAGGIGCGAGAGCCCGGGCCAGGACCIGGIGGIGCCCCCCGGGTCCATCACCAAC TrpThrProLysAlaCysVallleValTyrTyrIleGluAspAspGly :::	TTCATCCTTCCTTCCGCCTGGTGGCGTACACGCTGATCGGTGCCAGCGGCCAGAGG GluileileSerAspValleuLysileProValGln	1682 GAGGTGGTCGCGACTCCGTGTGGGTGGACGTCAAGGACTCCTGCGTGGGCTCGCTGTGTG 1741 555 PhelysAsnLys1leLysLeuTyrTrpSerLysValLysAlaGlu 569 ::: 1742 GTAAAAAGCGGC	ValSerLeuArglleSerValTh			PheAlaValPheGluGysGlyLeuTrpValLeuThrAspAla		2015 CAGAGGGCAGAACTICAGTGCCCGCAGCCGCCGCCGACGCCGTTCCGTGCAGCTC 2074	ACGGAGAAAGCGAATGGACAAAGTCGGCAAGTACCCCAAGGAGGTGCGCAAGTGCTGCGAG	652 AspGlyValTyrAspAsnAlaGluTyrAlaGluArgPheMetGlu 666	AAGGTCTTCCTGGACTGCAACTACAACAACAACAACAACAACAACAACAACAACAAC		CACCACCTGGGCCTGGCCAGGAGTAACCTGGATGAGGACATC ArglyshisPheproGluThrTxplleTxp	2315 ATTGCAGAAGAACATCGTTTCCCGAAGTGAGTTCCCAGAGAGTGGCTGTGGAACGTT 2374 697
\$ 5	à :	8 & 8	8 8 7	දු රු දි	g à	음 <i>장</i> :	a & a	8 8	3 8 8	3 8 8	3 & 5	3 3	음 음 송	5 g	Sy dd	8 & 8	ò	8 & 8	원 장

915 GACGACTTGAAAGAGCCACCGAAAAATGGAATCTCTACGAAAGCTC
--

```
1351 nPhelysValSerAsnThrGlnAspAlaSerValSerIleValAspTyrTyrGluProAr 1371
                                                                                    1371 gArgGlnAlaValArgSerTyrAsnSerGluVal-----LysLeuSerSerCysAs 1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             65 GGTCCCAGCCTGCTG------CTCCTGCTACTAACCCACCTCCCCTGGCTCTG 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlyProProLeuLeuThrAlaAlaHisLeuLeuCysValCysThrAlaAlaLeuAlaVal 22
                                                 4447 ciriraardragagcrrarccagccrggagcagrcaaggrcracgccrarracaaccrgga
                                                                                                                23 AlaProGlyProArgPheLeuValThrAlaProGlyIlelleArg
                                                                                                                                                                                      4562 -CTCTGCCGTGAT---GAACTGTGCCGCTGTGCTGAGGAG 4597
                                                                                                                                                                 1388 pieuCysSerAspValGlnGlyCysArgProCysGluAsp 1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5056
381
287
609
358
63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                       Sequence 2, Application US/09132271
Patent No. 6221657
GENERAL INFORMATION:
APPLICANT: Harrison, Richard Alexander
APPLICANT: Farries, Charles Timothy
TITLE OF INVENTION:
NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-020-095-4 (1-1428) x US-09-132-271-2 (1-5056)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/793,126
FILING DATE: 07-FEB-1997
ATTORNEY/AGENT INFORMATION:
NAME: Baker, Hollie L.
REGISTRATION NUMBER: 31,321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/132,271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: HALE AND DORR LLP
STREET: 60 State Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 102
TELECONTUNICATION INFORMATION:
TELEPAN: (617) 526-6000
TELEPAN: (617) 526-5000
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.2e-89
931.00
40.88%
23.32%
12.67%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5056 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: li
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similari
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-132-271-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ო
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
No
                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                          à
                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ------ProSerProLeu 1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3988 GGAATCTGCCACCTCCTGCGATCAGAAGGAAAAATGAGGGTTTCACAGTCAC 4047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGAGATCTGTACCAGGTACCGGGGAACCAGGATGCCACTATGTCTATATTGGACATATC 4266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ||||
---CAGGAGGCTAAAQATATTTGCGAGGAGGTCAACAGGCTGCCAGGCAGCATCACT 3559
                                                                                                                                                                                ------PheLeuGluSerGluPheSerArgGlyIleSerAspAsnTyrThrLeu 1089
                                                                                                                                                                                                                      3560 AAAGCAGGAGACTTCCTTGAAGCCAACTAC---ATGAACCTACAGAGATCCTACACTGTG 3616
                                                                                                                                                                                                                                                           AlaLeulleThrTyrAlaLeuSerSerValGlySerProLysAlaLysGluAlaLeuAsn 1109
                                                                                                                                                                                                                                                                                                                                  1110 MetLeuThrTrpArgAlaGluGluGlyGlyMetGlnPheTrpValSerSerGluSer 1129
                                                                                                                                                                                                                                                                                                                                                                       ----- 3691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TyralaLeuLeuSerHisPheLeuGlnPheGlnThrSerGluGlyIle---ProIleMet 1165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3752 TATGCCCTCTTGGCC---CTACTGCAGCTAAAAGACTTTGACTTTGTGCCTCCGGTGG 3808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ArgirpheuSerArgGlnArgAsnSerLeuGlyGlyPheAlaSerThrGlnAspThrThr 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGGTGTTCCAAGCCTTGGCTCAATACCAAAAGGACGCCCCTGACCACGGAACTGAAC 3928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----Asn-IleSe 1229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rAlaAsnGlyPheGlyPheAlaIleCysGlnLeuAsnValValTyrAsnValLysAlaSe 1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1249 rGlySerSerArgArgArgArgSerIleGlnAsnGlnGluAlaPheAspLeuAspValAl 1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1108 AGATCAACTCACCTGTAATAAA----------TTGAACTCAAGGTCAC 4146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4147 CATAAAACCAGCACCGGAAACAGAAAAAAAGCCTCAGGATGCCAAGAACACTATGATCCT 4206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      uAsnValCysThrSerPheSerGlyProGlyArgSerGlyMetAlaLeuMetGluValAs 1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1302 nLeuLeuSerGlyPheMetValProSerGlu-------AlaileSerLeuSe 1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----AspHisGlyLysLeuAsnLe 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              uTyrieuAspSerValAsnGluThrGln---PheCysValAsnIleProAlaValArgAs 1351
                                                                                                                                                                                                                                                                                                                                                                                                                                              3692 AAAGATAAGAACCGCTGGGAGGACCCTGGTAAGCAGCTCTACAACGTGGAGGCCACATCC 3751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1186 ValAlaLeuLysAlaLeuSerGluPheAlaAla---LeuMetAsnThrGluArgThrAsn 1204
                                 AsnLysSerProValThrLeuThrAlaTyrIleValThrSerLeuLeuGlyTyrArgLys 1061
3398 GTCTTCCAGGAGGATGCGCCCGTGATACACCAAGAAATGATTGGTGGATTACGGAACAAC 3457
                                                                                                                                                                                                                                                                               LysLeuSerAspSerTrpGln-----ProArgSerLeuAspIleGluValAlaAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ----LysGluAsnLysAspAspLeuAsnHisValAspLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1062 TyrGlnProAsnIleAspVal---GlnGluSerIleHis-----
                                                          1205 IleGlnValThrValThrGlyProSerSer-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rGluThrValLysLysValGluTyr----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1219 AlavalvalGlnProMetAlaval-----
                                                                                                                                                                                                                                                                                                                                                                     3677 TTTĊTĠÀĊĊ------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1269 aVal-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1282
                                   1042
                                                                                                                                               3503
                                                                                                                                                                                                                                                           1090
                                                                                                                                                                                                                                                                                                                                                                                                           1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                 ò
                                                                  d
                                                                                                          ò
                                                                                                                                       g
                                                                                                                                                                                ò
                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

AGTCCCATGTACTCTATCATCACCCCCAACATCTTGCGGCTGGAGAGGAGGAG 169	ProGlyGlyAsnValThrIleGlyValGluLeuLeu 49	ACCATGGTGCTGGAGGCCCACGACGCGAAGGTTCCAGTCACTGTTACTGTCCAC 229	OY OY OY III.: [289		CAACGTCACCTTCACGATCCCAGCCAACAGGGAGTTCAAGTCAGAAAAG 349			erAsnSerThrArgLeu 122		SerPheGluThrLysArgIleSerValPheIleGlnThrAspLysAlaLeuTyrLysPro 142	162	532	SerLeuAsnIleLeuIleLysAspProLysSerAsnLeuIleGlnGlnTrpLeuSer 181 Oy SerLeuAsnIleLeuIleLysAspProLysSerAsnLeuIleGlnGlnTrpLeuSer 181 Db		GINGINSerAspleuGlyVallleSerLysThrPheGInLeuSerSerHisProlleLeu 201	218	712	OY PheGlnValSerGluTyrValLeuProLysPheGluValThrLeuGlnThrPro 236	772	LeuTyrCysSerMetAsnSerLysHisLeuAsnGlyThrIleThrAlaLysTyrThrTyr 256	268		UYLeuProLeuSerPheTrpGlyLysLysLysLysAsn 279	ATTICCCTGCCTGAATCCCTCAAGCGCATTCCGATTGAGGATGGCTCGGGGGGGG	UY LIEThrLysThrPheLysIleAsnGlySerAlaAsnPheSerPheAsnAspGluGluMet 299	CTGAGCCGGAAGGTACTGCTGGACGGGGTGCAGAACCCCGAGCAGAAGACTGGTGGGG 1012	LysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSerSerProGly 319	1033	339	Accercarcarcacacarcarcaracaracacacacacaca	359	Agcegearccccarcerearccretaceaarccactreaccaagacacccaagaac 1138
GGGAGTCCCATG1										GAGAAGGTGGTGCTGC			GGCTCCACAGTTCTC	SerLeuAsnIleLeul	ACGGTCATGGTCAACA	GlnGlnSerAspLeuC ::: TCTCAGAACCAGGTTG	GlyAspTrpSerIleC	 	PheGlnValSerGlu1	TTTGAGGTGAAGGAGT	LeuTyrCysSerMetA TTCTACTACATCTATA	GlyLysProValLysC	 GGGAAGAAAGTGGAGG		ATTTCCCTGCCTGAA1	IleThrLysThrPheI	CTGAGCCGGAAGGTAC	LysAsnValMetAspS	AAGTCTTTGTACGTGT	ProValGluIleLeuT		ThrAsnValPhePheI	AGCGGGATCCCCATCC
113	38	170	50	230	49	290	8 L	350	103	401	123	143	473	163	533	182	202	653	219	713	237	257	833	269	893	280	953	300	1013	320	1034	340	1079
qq	ò	q	ò	ОÞ	δλ	ΟÞ	8	ag	ර් ස්	o D	& A	λ	, qq	, d t	g C	ò f	à	q	ò	qq	& 8	8	qa	δ	qq	λō	qq	δ	ą	Š	QQ	δ,	qq

<u>.</u>	9	0 0
ភ	1139	TE VO
X	379	GlnLeuThrLeuGluGluArgArgAsnAsnValValIleThrValThrGlnArg 396
ą	1199	GCCTACCGAGTCCCCGTGGCAGTCCAGGGCGAGGACACTGTGCAGTCTCTAACCCAGGGA 1258
≽ .	397	AsnTyrThrGluTyrTrpSerGlySerAsnSerGlyAsnGlnLysMetGluAlaValGln 416
ű	1259	GATGGCGTGGCCAAACTCAGCATCAACACCCCAGCCAGCC
X	417	LysileAsnTyrThrValProGlnSerGlyThrPheLysileGluPheProileLeuGlu 436
. و	1304	
≿ t-	437	AspSerSerGluLeuGlnLeuLysAlaTyrPheLeuGlySerLysSerSerMetAlaVal 456
ą	1346	AGGCAGAGCAG
≻	457	HisSerLeuPheLysSerProSerLysThrTyrIleGlnLeuLysThr 472
ą	1382	CCCTACAGCACCGTGGGCAACTACTAATTACCTGCATCTCTCAGTGCTACGTACAGAG 1441
ځ	473	ArgAspGluAsnIleLysValGlySerProPheGluLeuValValSerGlyAsn 490
ā	1442	CICAGACCCGGGGGACCCTCAACGTCAACTTCCTCCTGCGAATGGACCGCCCCCGGGA 1501
<u>}</u> .	491	LysArgLeuLysGluLeuSerTyrMetValValSerArgGlyGlnLeuValAlaValGly 510
ą	1502	GCCAAGATCCGCTACTACATACATGAACAAGGGCAGGCTGTTGAAGGCGGGA 1561
<u></u>	511	LysGlnAsnSerThrMetPheSerLeuThrProGluAsnSer 524
a	1562	GCCCAGGTGCCAAAGCCCCGGCCAGGACCTGGTGCTGCCCCTGTCCATCACCACCGAC 1621
ž	525	TrpThrProLysAlaCysVallleValTyrTyrIleGluAspAspGly 540
ą	1622	THE TOTAL CONTROBUCTION TO THE TOTAL TRANSPORT OF THE TRA
Ϋ́	541	GluileileSerAspValLeuLysileProValGin554
ą	1682	::::::: :::: :::::::::::::::
λ	555	PhelysAsnLys1leLysLeuTyrTrpSerLysValLysAlaGlu569
д	1742	GTAAAAGCCGCCTATA GTCAGAAGACCGGCAGCCTGTA 1777
¥.	570	ProSerGluLysValSerLeuArglleSerValThrGlnProAspSerIleValGlyIle 589
ą	1778	CCTGGGCAGCAGATGACCCTGAAGATAGAGGTGACCACGGGGCCCGGGTGGTACTG 1834
<u>≯</u>	590	ValAlaValAspLysSerValAsnLeuMetAsnAlaSerAsnAspIleThrMetGluAsn 609
Q	1835	GIGGCCGIGGACAAGGGCGTGTTCGIGCTGAAAAAAAAAA
<u>></u>	610	ValValHisGluLeuGluLeuTyrAsnThrGlyTyrTyrLeuGlyMetPheMetAsnSer 629
ą	1895	ATCTGGGACGTGGTGGAGAAGGCAGACATCGGCTGCACCCCGGGCAGTGGGAAGATTAC 1954
λ	630	PhealavalPheGlnGluCysGlyLeuTrpValLeuThrAspAla644
Д	1955	GCCGGTGTCTTCTCCGACGCCAGGCGGCTGACCTTCACGAGCAGCAGTGGCCAGCAGAGCGCC 2014
٨	644	644
Д	2015	CAGAGGGCAGAACTTCAGTGCCCGCAGCCAGCCGCCGCCGACGCCGTTCCGTGCAGCTC 2074
>	645	AsnLeuThrLysAspTyrlle 651
۾	2075	ACGGAGAAGCGAATGGACAAAAGTCGGCAAGTACCCCCAAGGAGCTGCGCAAGTGCTGCGAG 2134

3164 CTAGAGAAGCGGCAGGGGGCCTTGGAGCTCP	967 TyrGlnArgGluAspGlySerPheSerAlaF 	987 TrpLeuSerAlaPheValLeuArgCysPhel :: ::: 3278 TGGCTGACGCCTACGTGGTCAAGGTCTTCT				TyrGlnProAsn CAGGAGGCT		1090 Alabeulteinriyzalabeuserserval :: 3617 GCCATTGCTGGCTATGCTCTGGCCCAGATG	1110 MetLeuThrTrpArgAlaGluGlnGluGlyC 3677 TTTCTGACC	1130 LysLeuserAspSerTrpGln3692 AAAGATAAGAACCGCTGGGA	1147 TyralaLeuleuserHispheLeuGlnPheC 	1166 ArgTrpLeuSerArgGlnArgAsnSerLeu(1186 ValAlaLeuLysAlaLeuSerGluPheAlaú ::: ::::::::::::::::::::::::::::	1205 IleGlnValThrValThrGlyProSerSer ::: 3929 GTTGATGREGEGEGEGEGEGEGEGEGEGEGEGEGEGEGEGEGEGE			1229 Indappliety Fuedly Fuedly Solling		4108 AGATCAACTCACCTGTAATAAA 1269 aValLyṣGl	: :: : :: : : : : : : : : : : : : : : :
q a	λ Q	S G	yo, da	& 43	<i>&</i> €	у d	장 점 ·	ON DP	B &	% ^q q	\$ 6 6	à à	& &	\dot \d	8 8	셤 :	충 옵 	δ	음 ò	- .
652 AspGlyValTyrAspAsnAlaGluTyrAlaGluArgPheMetGlu 666 ::: :: 2135 GAGGGAATGGGGAGAAACCCGATGAGGTTCTCGTGCAGGGGGGGG	GluAsnGluGlyHisIleValAspIleHis	Cleded Cender Control of the Control		GAGGACTTGAAAAGCCACCGAAAAATGCTCTACGAAGCTC	707 GlnGluPheGluValThrValProAspSerIleThrSerTrpValAlaThrGlyPheVal 726 2420ATGAATATATTTTGAAAGACTCCATCACGTGGGGAGATTCTGGCTGTGAGC 2473	IlesergluaspLeuglyLeuglyLeuThrThrThrProValgluLeuglnalaPheGln	747 ProPhePheIlePheLeuAsnLeuProTyrSerValIleArgGlyGluGluPheAlaLeu 766 	767 GluileThrilePheAsnTyrLeuLysAspAlaThrGluValLysValllelleGlu 785	LysSerAsplysPheAsplleLeuMetThrSerSerGlulleAsnAlaThrGlyHis	CTCCACAATCCAGCCTTCTGCAGCCTGGCCACCAACAAGGG	2696 CAGCAGACCATCCCCCCCCAAGTCCTCGTTGTCCGTTGTCCATATGTCATCGTGCCG 2755 825ThrHisLeuGlyGluIleProlleThrValThrAlaLeuSerProThrAlaSer 842	ASPAIAVAITHIGIAMETILLELEUVALLYSALAGIUGIVILEGIULYSSETTYISERGII 	Serie LeuchaspleuThraspashagleuGlnSerThrleulysThrleu 	2876 GCTGTTCGCACCCTGGATCCAGAACGCCTGGGCCGTGAAGGAGTGCAGAAGAG 2929 881 SerPheSerPheProAsnThrValThrGlySerGluArg 894	g	895ValGlnIleThralaIleGlyAspValLeuGlyProSerIleAsnGly 910		3044 CGGCTGAAGCACCTCATTGTGACCCCCTCGGGCTGCGGGGAACAGAACATGATCGGCATG 3103 930 AlaproAsnileTyrileLeuAspTyrLeuThrLysLysLysGinLeuThrAspAsnLeu 949	3104 ACGCCCACGGTCATCGCTTTACCTGGATGAAACGAAGCAGCAGGAAGTAGGGAGAAGTTCGGC 3163	950 LysGluLysAlaLeuSerPheMetArgGlnGlyTyrGlnArgGluLeuLeu 966
ઇ ત	3 8 8	a & a	8 & 8	රු සි	δλ Oγ	\dagger \dagge	Sy do	े हें	8 8 1	Q VO	영 & 6	g & f	gg Vo	යි දි	qu	රු සි	ò	ବୁଣ ଧ	4 0	٥٨

r------ 1218 inasnGlnGlualaPheAspLeuAspValAl 1269 AAAGGACGCCCTGACCACGAACTGAAC 3928 31nLeuAsnValValTyrAsnValLysAlaSe 1249 ::: ||||||| || CGGTGGTGAAGGCCAA 4107 SluAsnLysAspAspLeuAsnHisValAspLe 1282 eSerArgGlyIleSerAspAsnTyrThrLeu 1089 :::|||||||:::
ATGAACCTACAGAGATCCTACACTGTG 3616 lGjySerProLysAlaLysGluAlaLeuAsn 1109 :||| |GGGCAGGCTGAAGGGGCCTCTTCTTAACAAA 3676 yGlyMetGlnPheTrpValSerSerGluSer 1129 -ProArgSerLeuAspIleGluValAlaAla 1146 eGlnThrSerGluGlyIle---ProileMet 1165 uGlyGlyPheAlaSerThrGlnAspThrThr 1185 aAla---LeuMetAsnThrGluArgThrAsn 1204 -cagcrccagarcacccaccdrarccatrd 3987 erenglualaaspProTyrileaspileasp 1006 preu---rysGlyHisGlnrysSerAsnGly 1025 ||||| GCTGATCCTGGAGAAGCAGAAGCCCGACGGG 3397 sSerGluLeuGlnGlyGly------ 1041 CCAAGAAATGATTGGTGGATTACGGAACAAC 3457 rilevalThrSerieuLeuGlyTyrArgLys 1061 ::::::: TGTTCTCATCTCGCTG-----3502 uSerIleHis----- 1073 | ::::::: GCAGGTCAACAGCCTGCCAGGCAGCATCACT 3559 ::: ------ACAGCC 3691 TAAGCAGCTCTACAACGTGGAGGCCACATCC 3751 carcaagaagggracacccagcagcrggcc 3223 CTTCGTGAACGGGCACCC----AGCACC 3277 crerederereacereardeceardade 3337 aPheGlyAsnTyrAspProSerGlySerThr 986

. 20	241 GACTICCCAGGCAAAAACTAGTGCTGTCCAGTGAGAAGACTGTGCTGACCCTGCCACC 300	64	301	83 GlySerPheLysThrLeuThrLeuProSerLeuProLeuAsnSerAlaAspGlulleTyr 102	361	103 GlubeuArgValThrGlyArgThrGlnAspGlulleLeuPheSerAsnSerThrArgLeu	123	451TTCATCCAGACAGACATCATCCCTT	143	484	163 SerLeuAsnIleLeuIleLysAspProLysSerAsnLeuIleGInGlnTrpLeuSer 181	544	182 GlnGlnSerAspLeuGlyVallleSerLysThrheGlnLeuSerSerHisProlleLeu 201	202	664	219 PheGlnValSerGluTyrValLeuProLysPheGluValThrLeuGlnThrPro 236	237 LeutyrCysSerMetAsnSerLysHisLeuAsnGlyThrIleThrAlaLysTyrThrTyr 256	257	269	280 IleThrLysThrPheLysIleAsnGlySerAlaAsnPheSerPheAsnAspGluGluMet	964	300	1024 AAGTCTTTGTACGTGTCTGCC	320 ProValGluIleLeuThrThrValThrGluSerValThrGlyIleSerArgAsnValSer 339 1045	340 ThrAsnValPhePheLysGlnHisAspTyrIleIleGluPhePheAspTyrThrThrVal 359	::: ::: 1090 AGGGGATCCCCATCGTCACTACCAGATCCACTTCACCAAGACACCCAAGTAC 1149	360 LeulysProSerLeuksnPheThrAlaThrValLysValThrArgAlaAspGlyAsn 378	TTCAAACCAGGAATGCCCTTTGACCTCATGGTGTTCGTGACGAACCCTGATGGCTCTCCA	379GlnLeuThrLeuGluGluArgArgAsnAsnValValIleThrValThrGlnArg 396
ð	d d	ò	qu	ò	qq	કે ક	3 2	연	ò	q	ò	qq	상 음	ò	qq	\$\frac{1}{2}	& g	è 8	& E	Š	d G	ò	d d	& 4d	ò	đ	à	đ	ò.
Db 4147 CATAAAACCAGCACCGGAAACAGAAAAGGCCTCAGGATGCCAAGAACACTATGATCCT 4206	Oy 1282 uAsnValCysThrSerPheSerGlyProGlyArgSerGlyMetAlaLeuMetGluValAs 1302	Db 4207 TGAGATCTGTACCAGGAGACCAGGATGCCACTATGTCTATATTGGACATATC 4266		Db 4267 CATGATGACTGGCTTTGCTCCAGACACAGATGACCTGAAGCAGCTGGCCAATGGTGTTGA 4326	1317 rGluThrValLysLysValGluTyrAspHisGlyLysLeuAsnLe	Db 4327 CAGATACATCTCCCAAGTATGAGCTGGACACAAAGCCTTCTCCGGATAGGAACACCCTCATCAT 4386		1351 nPheLysvalSerAsnThrGlnAspAlaSerValSerIleValAspTyrTyrGluProAr	Db 4447 CTTTAATGTAGAGCTTATCCAGCCTGGAGCAGTCTAGGCTATTACAACGTGGA 4506	1371	Db 4507 GGAAAGCTGTACCCGGTTCTACCATCCGGAAAAGGAGGATGGAAAGCTGAACAAG 4561	1388 pLeuCysSerAspValGlnGlyCysArgProCysGluAsp	Db 4562 -CTCTGCCGTGATGAACTGTGCCGCTGTGAGGAG 4597 RESULT 8	US-09-142-334-23 Seguence 23, Application US/09142334 : Patent No. 626488	; APPLICANT Farries Timorhy C) APPLICANT: Harrison, Richard A. ; TITLE OF INVENTION: Down-Regulation Resistant C3 Convertase ; FILE REFERENCE: 4.30443/A/IMU/PCT	1251) NUMBER OF SEQ ID NOS: 35 ; SOFTWARE: Patentin Ver. 2.0 ; SEQ ID NO 23 ; LENGTH: 5067	; TYFE: DNA ; ORGANISM: Homo sapiens US-09-142-334-23	ent Scores: 1.2e-89 Length:	931.00 Matches: 40.88% Conservative:	nocal Similaricy: 23.323 Watch: 12.67%		3 GlyProProLeuIhrAlaAlaHlsLeuLeuCysValCysThrAlaAlaLe	76 GGTCCCAGCCTGCTGCTCCTGCTACTAACCCACCTCCCCCTGGCTCTG	Oy 23 AlaProdlyProArgPheLeuValThrAlaProGlyIleIleArg 37 Oy 23 AlaProdlyProArgPheLeuValThrAlaProGlyIleIleArg 37	38		

1310 Gentra-Confidentic Confidentic Co	CTAGAGAAGCGGCAGGG CTAGAGAAGCGGCAGGG TYrGlnArgGluAspGl		652 AspGlyValTyrAspAsnAlaGluTyrAlaGluArgPheMetGlu 666 :::: 2146 GACGGCATGCGGAGAACCCCATGAGGTTCTCGTGCCAGCGCCGGACCCGTTTCATCTCC 2205 667 GluAsnGlu
1210 OCCUR-COMPONING CONTROL CONTR	930 AlabroAsnileTyrileLeuAs ::: 3115 ACGCCCACGGTCATCGCTGTGCA	දුරු අධ	CAGAGGGCACAGACTICAGIGCCCGCAGGCCGCCGAGGCCGIICCGII
1210 OCCURACIONACCACAGACCAGACACACAGACACACACACACACACACA	ıυ	ž d	644
1210 GCCTACCCANTCCCCTAGGCCCAGGCCCTCTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT	AGAATTCT	7 Q &	PheAlaValPheGlnGluCysGlyLeuTrpValLeuThrAspAla 644
1210 GCCTACCGAGTCCCCTGCGCGGGGGGCGCGCGCGCGCGAGA 1269 07 07 07 07 07 07 07 0	G	셤 :	
1210 GCCTACCGAGTCCCCGTGCCACTCCACGCAGGACATCTCTACACCGCGAGA 1269 397 ABRITYTHTCOLUTYTTDSGLGUYGCACCCGGGCACACTCTTACCCGGGCACTCTTACCCGGGCACACTCCACGGGACTCTCTACCCGGGCACTCTCCTTACCCGGGCACACTCCACGGCCCGCGCGAGGACTCTCCTG 1356 1270 GAYGGCGTGGCCCAAACTCACACACCCCCGGCCACGAGCTCTCC 1356 1315	2887 GCTGTTCGCACCCTGGATCC 881 SerPheSerPheProproAsnTh	ብ ሯ	
1210 GCCTACCGAGTCCACGGCGACGACACTGTGCACTTCTAACCGGCAA 1269		δ	CCTGGGCAGCAGCAGAAGACCCTGAAGATAGAGGGTGACCACGGGGCCCCGGGTGGTACTG 184
1210 GCCTACCAGGGCCGAGGGCCGAGGACACTGTCAACCAGGGCA 1269 397 AstryrthcdlutyrtrpSerGlySexhanSerGlyAsnGlnLysMetGlualavalGln 416 1270 GATGGCGGGCCAAGCCCCCGCGCCAAGAG 1270 GATGGCGTGGCCAACTCCGCGCCACAGAG 417 LysTleAsnTyrthrCalProGlnSerGlyAsnGlnLysMetGlualavalGln 416 1315		% 8	ProSerGlulysValSerLeuArglleSerValThrGlnProAspSerlleValGly1le 589
1210 GCCTACCGAGTCCCCCCCCCCCCCCCCCCCCCCCCCCCC	CTAAA	qa (PhelysasnlysllelysleuTyrTrpSerLysVallysAlaGlu
1210 GCCTACCCGAGGCCCCGGGGGGCCCGGGGGCCAGGGGGGGG		3 &	:::::: ::: :::
1210 GCCTACCGAGGCGAGGGACACTGGCAGGA 1269 397 ABILTYTHICGUTYTTDSETCHYSELABISETCHYARGINLIAVAGGAGA 1269 407 ABILTYTHICGUTYTTDSETCHYSELABISETCHYARGINLIAVAGGAGA 1269 417 LyslleAbilTyTHYTYDSETCHACACCCCCGGCAGGAGCTCTCH 136 417 LyslleAbilTyTHYTALACCCCAGCCAGCAGGAGCCTCTC 136 418 ASDSETCHACACTCACACCCCCGGCCAGCAGGAGCCTCTC 136 419 ASDSETCHACACTCACACCCCCGGCCAGGAGCCTCTC 136 410 LyslleAbilTyTHYTHYTHEGINEPELYSIIGGINPHPPTOTIC 1392 411 LyslleAbilTyTHYTHYTHEGINEPELYSTHYTHYTHIGGINEPTOTIC 1392 412 ASDSETCHACAGCACCCGGGCCAGGACCATGCAGGCCTCTC 136 413 ASDSETCHACAGCACCCGGCAGCAGGACCATGCAGGCCTCTC 136 414 Lyslear LeubheilysSerProSerIyThTTYTHIGGINEULYSTHYTHYTHIGGINEULYSTHYTHYTHYTHYTHYTHYTHYTHYTHYTHYTHYTHYTHYT		ठे व	GlulelleSerAspValLeuLys1leProValGln
1210 GCCTACCAGATCCCCCAGGACACACTGCAGACACTGCAGGA 1269 397 AsnTyThrGluTyTrySerGlySerAsnSerGlyAsnGlntyAstGCTACACACACACAGGACA 1269 1270 GANGGCCTGCCAACCTCACCCCCCCCCCCCCAGCAAGA	0	ପ୍ପ	TrpThrProtysAlaCysVallleValTyrTyrIleGluAspAspGly
1210 GCCTACCGGGGCAGGCAGCACCCGAGGAGA 1269 1209 1210 GCCTACCGGGGCAGGCAGCACCCGAGGACCCCGAGGAGACCCCCAACCCCAGGGAGACCCCCAACCCCAGGGAGACCCCCAACCCCAGGAGCACCCCAGGAGCACCCCAGGAGCACCCCAGGAGCACCCCAGGCAGAACCCCCAGCCAGAACCCCCC	0 1	g &	::: cgccaggrgagagcccaggcaagaccrgagggcrgccccagraaracaccaacca
1210 GCCTACCGAGGCCAGGCCAGGACACTGCAGTALLINININININIAGACACAGGAA 1269 397 ABRITYTHIGHUTYTTSBERGLYSEASBEAGLACTGTGCAGTCTCTAACCCAGGGAA 1269 417 GATGGCCTGGCCAAACTCAGCACACACCCCAGCAGAAGAAGCACAGAAGAAGCACTCTCTAACACACAC		ò	GCCAAGATCCGCTACTACACCTACCTGATCATGAACAAGGCAGGC
1210 GCCTACCGAGGCCAGGCGAGGCACTCTACCCAGGA 1269 677 67		ъ е	LysargLeuLysGluLeuSerTyrMetValValSerArgGlyGlnLeuValAlaValGly :::::::::::::::::::::::::::::::::::
1210 GCCTACCGAGCCAGGCGAGGCCAGGCACTCTACCCAGGGA 1269 397 ABINTYTHIGHUTYITIDSECTIVE STATEMENT ACCTCAGGCGAGGCCAGGGA 1269 397 ABINTYTHICHUTYITIDSECTIVE STATEMENT ACCTCAGCCAGGCGAGGCTCCCAGGCCAGAGGTCTCTAGCATCACCCCAGCCAG		QD .	cragacccagagaacccraacafcaacraccacacaaraacacacacaagaa 151
1210 GCCTACCGAGGCGAGGCGAGGCCAGGGGA 1269		δ	CCCIACAGCACCGIGGGGAACICCAACAAITACCIGCAICICICAGIGCIACGIACAAGAG
1210 GCCTACCGAGCCAGGCCAGGCACACTCTACCCAGGA 1269		- ପ୍ର	HisSerLeuPheLysSerProSerLysThrTyrlleGlnLeuLysThr
1210 GCCTACCGAGTCCCGGGGGAGCGAGGCGAGGCATCTCTAACCCAGGGA 1269 Oy 677 397 ABITYTTHEGUTYTTPSERGIYSERASSEGTHYSENGULLEGUALAVAIGIN 416 Db 2266 1270 GATGGCGTGGCCAAACTCAACACACACACACAGAAG		3 8	GAGGCAGAGCAGGCTACCAGGACCATGCAGGCTGTGT
1210 GCCTACCGAGTGCAGTCCAGGGCAGGAGGA 1269 397 AsmlyrThrGluTyrTrpSerGlySerAsmSerGlyAsmGlnLysMetGluAlaValGln 416 1270 GATGGCGTGGCCAAACCCCAGCCAGCAGAGAG		& 8	AspSerSerGluLeuGlnLeuLysAlaTyrPheLeuGlySerLysSerSerMetAlaVal
1210 GCCTACCGAGTGCCGCGAGGGGGAGACACTCTAACCCAGGGA 1269 397 AsnTyrThrGluTyrTrpSerGlySerAsnSerGlyAsnGlnLysMetGluAlaValGln 416 317 AsnTyrThrGluTyrTrpSerGlySerAsnSerGlyAsnGlnLysMetGluAlaValGln 416 318		a :	
1210 GCCTACCGAGTGCCAGTCCAGGGCGAGGACACTGTGCAGTCTCTAACCCAGGGA 1269 397 AsmlyrThrGluTyrTrpSerGlyAsmGluAlavalGln 416 1270 GATGGCGTGGCCAAACACACACACACACACAGCAGAAG 1314 Db 2266		රි සි	LyslleAsnTyrThrValProGlnSerGlyThrPheLyslleGluPheProlleLeuGlu
1210 GCTACCGAGTCCCGTGGCAGTCCAGTGCAGTCTCTAACCCAGGA 1269 Qy 677		d	ABNIYETINEGLUIYETINEGBECLIYSERASINSERCIYABIIGIINIYSMEECULMALAYAALGIIN GATGGGGGGGGCAAACTCAGGATCAACACACACCCCAGCCAG
		·	12

2206	
. 677	1
2266	gccreeccagagraaccredarbagga
. 681	GlySerSerProHisValArgLysHisPheProGluThrTrp1leTrp 696
2326	ATTGCAGAAGAGAACATCGTTTCCCGAAGTGAGTTCCCAGAGAGCTGCCTGTGGAACGTT 2385
697	LeuAspThrAsnMetGlyTyrArgIleT
2386	GAGGACTTGAAAGAGCCACCGAAAATGGAATCTCTÄCGAAGCTC 2430
707	/Pheval 72
2431	24
727	746
2485	25
747	99
2542	26
767	785
2602	
786	04
2659	crccacaarccaccritcrecaectrescaccaccaasasscsrcac 2706
80	GINGINThrLeuleuValproSerGluAspGlyAlaThrValLeuPheProIleArgPro 824
0 (0 0
678	00 ۲
, 4	862
٠ ٥	00
863	SerlleLeuLeuAspleuThrAspAsnArgleuGlnSerThrLeulysThrLeu 880
2887	GCTGTTCGCACCCTGGATCCAGAACGCCCTGGGCCGTGAAGGAGTGCAGAAGAG 2940
881	SerPheSerPheProProAsnThrValThrGlySerGluArg 894
2941	GACATCCCACCTGCAGACCTCAGTGACCAAGTCCCGGACACCGAGTCTGAGACC 2994
895	ValGlnIleThrAlaIleGlyAspValLeuGlyProSerIleAsnGly 910
2995	
911	LeualaSerLeulleArgMetProTyrGlyCysGlyGluGlnAsnMetlleAsnPhe 929
3055	31
930	AlaProAsnileTyrileLeuAspTyrLeuThrLysLysLysGlnLeuThrAspAsnLeu 949
3115	ACGCCCACGGTCATCGCTGTGTTACCTGGATGAAACGGAGCAGTGGGAGAAGTTCGGC 3174
95	99
3175	32
796.	TyrGlnArgGluAspGlySerPheSerAlaPheGlyAsnTyrAspProSerGlySerThr 986

```
rGluThrValLysLysValGluTyr-
                                                                                                                                                                                                                                                                                                                Sequence 107, Application US/09566921
Patent No. 6682888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.58e-89
930.00
40.88%
23.32%
12.66%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                      US-09-566-921-107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; OTHER INFORMA
US-09-566-921-107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 107
            4278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No.:
      유
                                \overset{\circ}{\circ}
                                                         g
                                                                                  à
                                                                                                        ద
                                                                                                                                      ઠે
                                                                                                                                                             g
                                                                                                                                                                                      ò
                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                         3348
                                              GlnAsnValleuHisArgThrTyrThrTrpLeu---LysGlyHisGlnLysSerAsnGly 1025
                                                                                                1026 GluPheTrpAspProGlyArgValIleHisSerGluLeuGlnGlyGly----- 1041
                                                                                                                                                  1042 AsnLysSerProValThrLeuThrAlaTyrIleValThrSerLeuLeuGlyTyrArgLys 1061
                                                                                                                                                                  1062 TyrGlnProAsnIleAspVal---GlnGluSerIleHis------1073
                                                                                                                                                                                                                  3571 AAAGCAGGAGACTTCCTTGAAGCCAACTAC---ATGAACCTACAGAGATCCTACACGTG 3627
                                                                                                                                                                                                                                                                                                                    ||||::
|CCATTGCTGGCTATGCTCTGGCCCAGATGGGCAGGCTGAAGGGGCCTCTTTAACAAA 3687
                                                                                                                                                                                                                                                                                                                                                      1110 MetLeuThrTrpArgAlaGluGluGluGlyGlyMetGlnPheTrpValSerSerGluSer 1129
                                                                                                                                                                                                                                                                                                                                                                                                       LysLeuSerAspSerTrpGln------ProArgSerLeuAspIleGluValAlaAla 1146
                                                                                                                                                                                                                                                                                                                                                                                                                        TyralaLeuLeuSerHisPheLeuGlnPheGlnThrSerGluGlyIle---ProlleMet 1165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ||||||||||::: |||||||| CGTTGGCTGGTGGCTCTACCCAGGCCACCTTC 3879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ralaAsnGlyPheGlyPheAlaIleCysGlnLeuAsnValValTyrAsnValLysAlaSe 1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3349 TCCCAAGTCCTCTGCGGGGCTGTTAAATGGCTGATCCTGGAGAAGCAAGAAGCCCGACGGG 3408
                                                                                                                                                                                                                                                    ------PheLeuGluSerGluPheSerArgGlyIleSerAspAsnTyrThrLeu 1089
                                                                                                                                                                                                                                                                                                      AlaLeuIleThrTyrAlaLeuSerSerValGlySerProLysAlaLysGluAlaLeuAsn 1109
                                                                                                                                                                                                                                                                                                                                                                                3688 TTTCTGACC----ACAGCC 3702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1166 ArgTrpLeuSerArgGlnArgAsnSerLeuGlyGlyPheAlaSerThrGlnAspThrThr 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ValAlaLeuLysAlaLeuSerGluPheAlaAla---LeuMetAsnThrGluArgThrAsn 1204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ------Asn-IleSe 1229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rGlySerSerArgArgArgArgSerIleGlnAsnGlnGluAlaPheAspLeuAspValAl 1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGATCAACTCACCTGTAATAAA---------TTCGACCTCAAGGTCAC 4157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               uasnvalCysThrSerPheSerGlyProGlyArgSerGlyMetAlaLeuMetGluValAs 1302
              TrpLeuSerAlaPheValLeuArgCysPheLeuGluAlaAspProTyrIleAspIleAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAATCTGCCAGCCTCCTGCGATCAGAAGAACCAAGGAAAATGAGGGTTTCACAGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               :::||| ::: ||| catababcaccaccagabaccababagaccttaggattgctagabacactatgatcct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               aVal-------AValAspLysASpLeuAspLeuAspLeuAspLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IleGlnValThrValThrGlyProSerSer--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1219 AlaValValGlnProMetAlaVal-----
                                                1007
                                                                                                                                                                                                                                                                                                                                                                                                     1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4119
                                                                                                                                                                                                                                                    1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1249
                    d
                                                                    g
                                                ò
                                                                                         ઠે
                                                                                                                    원
                                                                                                                                                 8
                                                                                                                                                                     d
                                                                                                                                                                                            \delta
                                                                                                                                                                                                                     Db
                                                                                                                                                                                                                                                                     Ωp
                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                     Db.
                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                              \dot{\circ}
                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
```

```
:::::::|||||||
catgatgactegctttectccagacacagatgacctgaagcagctagccaatggtga 4337
                                                                                                                                                                                                                                         ----AlalleSerLeuSe 1317
                                                                                                                                                                                                                                                                                                                  1351 nPheLysValSerAsnThrGlnAspAlaSerValSerIleValAspTyrTyrGluProAr 1371
                                                                                                                                                                                                                                                                                                                                                1371 gArgGlnAlaValArgSerTyrAsnSerGluVal------LysLeuSerSerCysAs 1388
                                                                                                                                                                                                           uTyrLeuAspSerValAsnGluThrGln---PheCysValAsnIleProAlaValArgAs 1351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ||| ::: ::| || 139 GGG---AGTCCCCATGTATCATCATCACCCCCAACATCTTGCGGCTGGAGCGAGGAG 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         :::
GACTICCCAGGCAAAAACTAGTGCTGTCCAGTGAGAAGACTGTGCTGACCCCTGCCACC 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----ProGlyGlyAsnValThrIleGlyValGluLeuLeu 49
                                                                                                                                             CAGATACATCTCCAAGTATGAGCTGGACAAAGCCTTCTCCGATAGGAACACCCTCATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                       91 GGTCCCAGCCTGCTG-------CTCCTGCTACTAACCCACCTCCCCTGGCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3 GlyProProLeuLeuThrAlaAlaHisLeuLeuCysValCysThrAlaAlaLeuAlaVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196 ACCATGGTGCTGGAGGCCCACGACGCGCAAGGGGATGTTCCAGTCACTGTTACTGTCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              spHisGlyLysLeuAsnLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Loring, Jeanne F.
APPLICANT: Loring, Jeanne F.
APPLICANT: Tingley, Debora W.
APPLICANT: Edwards, Carla M.
TITLE OF INVENTION: GENES EXPRESSED IN ALZHEIMER'S DISEASE FILE REFERENCE: PA-0024 US
CURRENT APPLICATION NUMBER: US/09/566,921
CURRENT FILING DATE: 2000-05-05
NUMBER OF SEQ ID NOS: 138
SOFTWARE: PERL PROGRAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1388 pleuCysSerAspValGlnGlyCysArgProCysGluAsp 1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4573 -CTCTGCCGTGAT---GAACTGTGCCGCTGTGCTGAGGAG 4608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23 AlaProGlyProArgPheLeuValThrAlaProGlyIleIleArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5129
381
287
609
358
63
  nLeuLeuSerGlyPheMetValProSerGlu------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
NAME/KEY: misc_feature
OTHER INFORMATION: Incyte ID No. 6682888 1000186.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-020-095-4 (1-1428) x US-09-566-921-107 (1-5129)
  1302
```

8 8 8

8 8

8 8 ò 엄

OY 1007 GlnAsnValleuHisArgThrTyrThrTxpLeuLysGlyHisGlnLysSexAsnGly 1025	TyrGInProAsnIleAspValGInGluSerIleHis	TTTCTGAGCC LysleuSerAspSerTrpGInProArgSerLeuAspIleGluValAlaAla i:: :: :: AAAGATAAGAACCGTGGAGAGACCCTGGTAAGCAGCTCTACAACGTGGAGGCCACATCC TyrAlaLeuLeuSerHisPheLeuGlnPheGInThrSerGluGlyIleProIleMet :: TATGCCTCTTGGCCCTACTGCAGCTAAAAGACTTTGACTTTGTGCCTCCCGTCGTG ARGTFDLeuSerArgGInArgAsnSerLeuGlyGlyBheAlaSerThrGInAspThrThr ARGTTGGCTCAATGAGAGATACTACGGTGGTGGCTTC GGTTGGCTCAATGAGAGAGATACTACGGTGGTGGCTTCCCCACCTTC GGTTGGCTCAATGAGAGAGATACTACGGTGGTGGCTATGGCTTACCCAGGCCACCTTC	1186 ValAlaLeuLysAlaLeuSerGluPheAlaAlaLeuWetAsnThrGluArgThrAsn 120 3895 3163 316 317 317 318 318 318 318 318 318 318 318 318 318	00
CGGCAGCAGCAGCCAGCCACCAGCCAGCAGAACCTGGATGAGCACATC 2340 GlyserSerProHisValArglysHisPheProGluThTrpIleTrp 696 ATTGCAGAAGACAACCTTCCCGAACTGAGTTCCCAGAGAGCTGGCTG	IleSerGluAspLeuGlyLeuThrThrProValGluLeuGlnAlaPheGln 746 ::: ::: ::: ::: :::	785Lysseraspuysrdespuitesiserstuttesinalinciyals 804 2674 CTCCACAATCCAGCCTTCTGCAGCCACCACCAGAGGGCGTCAC 2721 805 GlnGlnThrLeuLeuValProSerGluAspGlyAlaThrValLeuPheProlleArgPro 824 805 GlnGlnThrLeuLeuValProSerGluAspGlyAlaThrValLeuPheProlleArgPro 824 825 CAGCAGACCGTAACCATCCCCCCCAAGTCCTTGTCCGTTCCATATGTCATCGTGCG 2781 825ThrHisLeuGlyGluIleProlleThrValThrAlaLeuSerProThrAlaSer 842 826ThrHisLeuGlyGluIleProlleThrValThrAlaLeuSerProThrAlaSer 842 82782 CAGCAGACCGCCAGGAGGTCAAGGCTGCCGTTCCATCATCATCAGT 2841 828ThrHisLeuGlyGluIleProlleThrValThrAlaLeuSerProThrAlaSer 842 829ThrHisLeuGlyGluIleProlleThrValThrAlaLeuSerProThrAlaSer 842 82782 CAAAGACCGCAGAAGTCGAAAGGTCGAAAGGTCGTAAGGAAACAGAAACTGTG 2891 82842 GACGTTCTCAAGAAGTCCCTGAAAGGTCGGAAGAAACAGAAACTGTG 2891	SerileLeuLeuAspleuThrAspAsnArgleu	CGGCTGAAGCACCTCTTGTGACCCCTCGGGCTACGGGGAACATGATCGCCATG 3129 AlaProAsnIleTyrIleLeuAspTyrLeuThrLysLysCJnLeuThrAspAsnLeu 949 AlaProAsnIleTyrIleLeuAspTyrLeuThrLysLysCJnLeuThrAspAsnLeu 949 LysClubysAlaLeuSerPheMethragaTyrdClnArgGluLeuLeu 966 LysGlubysAlaLeuSerPheMethragaTyrdClnArgGluLeuLeu 966 CTAGAGAAGCGGCAGGGGCCTTGGAGTCATCAAGAAGGGGTACACCCAGCAGCTGGCC 3249 TyrGlnArgGluAspGlySerPheSerAlaPheGlyAsnTyrAspTyrAspTyrGlACCCAGCAGCTGGC 3249 TyrGlnArgGluAspGlySerPheSerAlaPheGlyAsnTyrAspTyrIleAspTyrAspTyrIleAspTyrAspTyrIleAspTyrAspTyrAspTyrAspTyrIleAspTyrAspTyrIleAspTyrIleAspTyrAspTyrAspTyrAspTyrAspTyrAspTyrAspTyrAspTyrIleAspTyrAspTy

ò

qq ò 역 경 경 임

8 6

ò

ò

```
AlaAlaLeuAlaVal-
                                       31
                                                             33
                                                                                     91
                                                                                                                                                                                  211
                                                                                                                                                                                                                                                                                                     128
                                                                                                                                                                                                                                                                                                                                                    148
                                                                                                                                                                                                                                                                                                                                                                                                 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                  18
                                                                                                                                                                                                        88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             243
                                  ద
                                                             ò
                                                                               g
                                                                                                    õ
                                                                                                                             ď
                                                                                                                                                         ò
                                                                                                                                                                           g
                                                                                                                                                                                                   \dot{\delta}
                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                             --AspHisGlyLysLeuAsnLe 1332
                                                                                             1351 nPheLysValSerAsnThrGlnAspAlaSerValSerIleValAspTyrTyrGluProAr 1371
                                                                                                                                           1371 gArgGlnAlaValArgSerTyrAsnSerGluVal------LysLeuSerSerCysAs 1388
                                                                                                                                                                  1533 GGAAAGCTGTACCCGGTTCTACCATCCGGAAAAGGAGGATGGAAAGCTGAACAAG---- 4587
                    uTyrieuAspSerValAsnGluThrGln---PheCysValAsnIleProAlaValArgAs
                                                                                                                     CTTTAATGTAGAGCTTATCCAGCCTGGAGCAGTCAAGGTCTACGCCTATTACAACCTGGA
                                                                                                                                                                                                                                                                                               APPLICANT: VOGEL, CARL-WILHELM
APPLICANT: BREDEHCRST, REINHORST
APPLICANT: ROCK, MICHAEL
APPLICANT: FRITZINGER, DAVID
TITLE OF INVENTION: RECOMBINANT PROCVF
NUMBER OF SEQUENCES: 39
CORRESPONDENCE ADDRESS:
ADDRESSES: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,
ANDRESSES: OBLON,
                                                                                                                                                                                                         1588 - CTCTGCCGTGAT---GAACTGTGCCGCTGTGCTGAGGAG 4623
                                                                                                                                                                                         1388 pleuCysSerAspValGlnGlyCysArgProCysGluAsp 1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Eloppy disk
COMPUTER: Elem PC compatible
COPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/662,227
FILING DATE: 14-JUN-1996
CLASS-FRICATION: 530
ATTORNEY/AGRNY INFORMATION:
NAME: OBLON, NORMAN F.
REGISTRATION NUMBER: 24,618
REFERENCE/DOCKET NUMBER: 1126-0107-0X
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5948
361
295
672
276
56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JS-10-020-095-4 (1-1428) x US-08-662-227-1 (1-5948)
                                                                                                                                                                                                                                                                                                                                                                              STREET: 1755 S. JEFFERSON DAVIS HIGHWAY CITY: VALINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
rGluThrValLysLysValGluTyr----
                                                                                                                                                                                                                                                           Sequence 1, Application US/08662227
Patent No. 5922320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 703-413-220
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .66e-85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 5948 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             894.00
40.90%
22.51%
12.17%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores
                                                                                                                     4473
                         4353
                                                 1332
                     임
                                                                                                                셤
                                                                                                                                                             a
 à
                                              ò
                                                             유
장
                                                                                                                                          ਨੇ
                                                                                                                                                                                         ò
                                                                                                                                                                                                               a
```

```
CAAAGCGGCATTCATATTGTGGCATCTCCCTATCAGATCCACTTCACAAAACCCCCAAA 1059
                                                                                                                                                                                                                                                                                       210
                                                                                                                                                                                                                                                                                                                                                                                                    261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    496 ITICAGACTCCAGAAGGCATICTIGTCAGT------TCTAATICAGTIGACCTAAAC 546
                                                                                                                                                                   ccrecterrireceaacacacacacacacaaarrirrecrecagecccarecagacacr 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        108 GlyArgThrGlnAspGluIleLeuPheSerAsnSerThrArgLeuSerPheGluThrLys 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PheArgIleValThrLeuPheSerAspPheLysProTyrLysThrSerLeuAsnIleLeu 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IleLysAspProLysSerAsnLeuIleGlnGlnTrpLeuSerGlnGlnSerAspLeuGly 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  263 AspValThrLeuThrPheLeuProLeuSerPheTrpGlyLysLysLysAsnIle----- 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                        LeuThrLeuProSerLeuProLeuAsnSerAlaAspGluIleTyrGluLeuArgValThr 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTCTTC---TGGCCTTACAATTTACCAGACCTTGTCAGTTTGGGGACTTGGAGGATTGTG 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ---GlnValGlnValAsnAspGlnThrTyrTyrGlnSerPheGlnValSerGluTyrVal 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuProLysPheGluValThrLeuGlnThrPro------LeuTyrCysSerMetAsn 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SerLysHisLeuAsnGlyThrIleThrAlaLysTyrThrTyrGlyLysProValLysGly 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               281 -----ThrLysThrPheLysIleAsnGlySerAlaAsnPheSerPheAsnAspGluGlu 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       299 MetLysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSerSerPro 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyProValGluIleLeuThrThrValThrGluSerValThrGlyIleSerArgAsnVal 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    :::|||||||||| :::
------GTAACAGTCATGACAGAATCAGGCAGTGATATGGTAGTGACTGAG 999
                                          GCTGCTCTATTGATTTGCTTTTCCAGGGTCTTCTCATGGGGCTCTCTACACCCTCATCACC
                                                                                                                                                                                                                                                                                                                                              87
   32
                                                                                                                51
                                                                                                                                                                                                                          52 CysproSerGlnValThrValLysAla------GluLeuLeuLysThrAlaSer 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -AlaProGlyProArgPheLeuValThrAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ||||
322 CAAGTAACTGGTCCTCAAGTGAGATTGGAAAAGGTGGTTCTCCTTTCTTACCAGAGTAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ProGlyIleIleArgProGlyGlyAsnValThrileGlyValGluLeuLeu---GluHis
                                                                                                                                                                                                                                                               AsnLeuThrValSerValLeuGluAlaGluGlyValPheGluLysGlySerPheLysThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ArglleSerValPhelleGlnThrAspLysAlaLeuTyrLysProLysGlnGluValLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              664 rieccaagcriridaagrecereredaaceareagaagarrrrradarrasaegedar
                                                                                                                                                                                                                                                                                                                                                                                                 CAAACCAGAGTAGATTGGAATCCAGCAGGCATGCTTGTCACT-------CCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    188 ValileSerLysThrPheGlnLeuSerSerHisProlleLeuGlyAspTrpSerlle---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            898 TICCGIICTCGAITICCAAICTCAAIGAGCIIGIIGGGCAIACICTGIAIGCAICI---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                339 SerThrAsnValPhePheLysGlnHisAspTyrIleIleGluPhePheAspTyrThrThr
```

11	g &	2062 ATGGG
GInLeuThrLeuGluGluArgArgAsnAsnValValIleThrValThrGlnArgAsnTyr 398 ::: CCAGCTGCCCATGTGCCAGTGGTATCAGAGGCCTTT 1155	qa i	2122 GCCTC
ThrGluTyrTrpSerGlySerAsnSerGlyAsnGlnLysMetGluAlaValGlnLysIle 418 :::	ZZ q c	
AShTyrThrvalProGinSerGlyThrPheLysIleGluPheProIleLeuGluAspSer 438 ::: :::	6 6 6	2242 TCA-
SerGluLeuGlnLeuLysAlaTyrPheLeuGlySerLysSerSerMetAlaValHisSer 458 	. B	
LeuPheLysSerProSerLysThrTyrIleGlnLeuLysThrArgAspGluAsnIleLys 478	ර සි රි	
ValGlySerbroPheGluLeuValValSerGlyAsn	6 6 G	
LeulysGluLeuSerTyrMetValValSerArgGlyGlnLeuValAlaValGlyLys 511 :::	· 영 (
	S 6 5	//3 17FE
ProLysAlaCysValIleValTyrTyrIleGluAspAspGlyGluIleIleSerAspVal 546 	දී අ	
LeuLysIleProValGIn	3 B 5	
	A 4	
GlnProAspSerIleValGlyIle ::: GATCCAGGTGCTCGGGTTGGTCTT	y d	
MetasnalaSerasnaspIleThrMetGluasnValValHisGluLeuGluLeuTyrasn 618 	S 6 6	2806 AAAG
ThiglyTyrTyrLeuglyMetPheMetAsnSerPheAlaValPheGlnGluCysGlyLeu 638 	දුරු අධ	
TrpValLeuThrAspAlaAsnLeuThrLysAsp	y da	
	, de	923 GluG 2986 GAGC
CCTGCAAATCGGAGGCGTCGCAGTTCTGTTTTGCTGCTTGACAACGCAAGCAA	8 8	940 Thri
CONDADATION CONTINUES OF CONTROL DE PROCESTADA DE PROCESTA	a	3046 GAGC
	<i>&</i>	960 GLYT

2062	ATGGGGTACACTTGTGAAAAGCGTGCAAAATACATCCAGGAGGAGATGCTTGTAAGGCT 2121
6 57	
2122	CCTTGAATGCTGTCGCTACATCAAGGGGTCCGAGATGAAAACCAACGGGAGAACCAA
662	GluargphemetGluGluasnGluGlyHislleValAspIleHisAspPhe 678
	uGlySerS
2427	AspThrAsnMetGlyTyrArglleTyrGlnGluPheGluValThr 712
œ	:::
713	ValProAspSerIleThrSerTrpValAlaThrGlyPheValIleSerGluAspLeuGly 732 ::: :::
73	roPhePheIlePheLeu 752
0	4 1
753	AsnienproyysesytaliteargGiyGluGiuPhealaledGiulleinfilerneash //2 caaargccafattCaGTAGTGaagaaTGAGCAGGTGGAAGATTCGAGCTATTCTGCACAAC 2517
773	TyrbeulysAspAlaThrGluValLysValIleIleGluLysSerAspLysPheAspIle 792
2518	::: TacgttaacgaggatatttatgtgcgagtggaactgttatacaacccagccTtC 2571
793	72
2572	ATACCGACAGCAGTTCCCAATTAAAGCC 26
813	30
2626	56
83	ProlleThrValThrAlaLeuSerProThrAlaSerAspAlaValThrGlnWetileLeu 850 - - - - - - - - - - - -
20	AGCAAGTGTCCAGGAAGCGTTGGTCAGACGGTGTGAGAGGAAGGA
851	VallysalagluglyileglulysSerTyrSerGlmSerileLeuLeuAspLeuThrAsp 870
871	GlnSerThr
2806	::: AAAGGAGTTGGTGGAACA
885	ProProAsnThrValThrGlySerGluArgValGlnIleThrAlaIleGlyAspValLeu 904
2866	CCTGACACAGAAATTGAAACCAAGATTATCATCCAAGGTGACCCCTGTGGCTCAGATTATT 29
908	GlyProSer11eAsnGlyLeuAlaSerLeu11eArgMetProTyrGlyCysGly 922
2926	GAAAACTCAATTGATGGAAGTAAACTCAACATCACATTATCACTCCTTCTGGCTGTGG
923	GluGlnAsnMetlleAsnPheAlaProAsnIleTyrIleLeuAspTyrLeu 939 GAGCAAAATATGATCGGCATGGCCGGACCAGTTATTGCCACCTACTACTGGACACCACA 3045
940	ThrLysLysLysGlnLeuThrAspAsnLeuLysGluLysAlaLeuSerPheMetArgGln 959
3046	GAGCAGTGGGAGACTCTCGGCATAAATCGCAGGACTGAAGCTGTCAATCAGATCGTGACT 31
096	GlyTyrGlnArgGluLeuIyrGlnArgGluAspGlySerPheSerAlaPheGlyAsn 979

Qy 1307 PheMetValProSerGluhlaIleSerLeuSerGluThrValLys 1321 : : : : : :	4351 TTCATTCAGCCAGGATCAGTCAAGGTGTACAGCTACTACAATCTAGATGAAGAATGTACC 1376 ArgserTyrasnserGluValLysLeuSerSerCysAspLeuCysSerAspValGlnGly ::::::::::::::::::::::::::::::::::::	RESULT 11 US-09-017-947-1 i Sequence 1, Application US/09017947 j Patent No. 6303754 i GENERAL INFORMATION: APPLICANT: WOGEL, CARL-WILHELM APPLICANT: RETYALNER, DAVID I TILE OF INVENTION: RECOMBINANT PROCVF NUMBER OF SEQUENCES: 39 CORRESPONDENCE ADDRESS: ADDRESSEE: P.C. STREET: 1755 S. JEFFERSON DAVIS HIGHWAY CITY: ARLINGTON STATE: VA COUNTRY: USA COUNTRY: USA COUNTRY: USA	MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/017,947 FILING DATE: CLASSIFICATION PRIOR APPLICATION DATA: APPLICATION NUMBER: US 08/662,227 FILING DATE: 14-UN-1996 ATPOINEY/AGENT INFORMATION: NAME: OBLON, NORMAN F. REGISTRANION NUMBER: 24,618 REFERENCE/DOCKET NUMBER: 1126-0107-0X TELEPHONE: 703-413-3200 TELEPHONE: 703-413-3200 TELEPHONE: 703-413-2220 INPORMATION POR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS:
GGTTATGCCCCAGCAGATGGTGTACAAGAAAGCAGATCATTCCTATGCAGCATTT TYRASPPROSETGIYSerThrTrpLeuSerAlaPheValleuArgCysPhe CGTGCATCTTGGCTAACAGCATATGTCGTAAAAGTCTTTGCC AlaaSpProTyrIleAspIleAspGlnAsnValLeuHisArgThrTyrThrTrp	1038 LeuGlnGlyGlyAsnLysSerProValThrLeuThrAlaTyrIleValThr 1054 3340 ATGCAGGGAGGAATTCAAGGTGCTGAAGAAGTATATTAACAGCTTTCATTCTTCTTCTTCTTCTTCTTCTGTT 3399 1055 SerLeuLeuGlyTyrArgLysTyrGlnProAsnIleAspVal 1068 1056 GlnGluserIleHisPheLeuGluserGlupheSerArgGlyIleSerAspAsnTyrThr 1088 1056 GlnGluserIleHisPheLeuGluserGlupheSerArgGlyIleSerAspAsnTyrThr 1088 1108 LeuAaaGGCCACAAATTATTACTCAAAAGTATGAGAACTGCAAAGGCCTTACACT 3516 1089 LeuAlaLeuIleThrTyrAlaLeuSerSerValGlySerProLysAlaLysGluAlaleu 1108 1109 AsnMetLeuThrTxpArgAlaGluGlnGluGlyGlyMetGlnPheTrpValSerSerGlu 1128		9

```
ATGGGAACGTTGGTTGTGAAGGAGACATCTA 1668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       :::
hgctaagatatggacacacaatagaaaagagtgac 1821
                                                                                                                                                                                                                                                               ::: |||
---GCCCANGTGCCAGTGATCAGAGGCCTTT 1155
                                                                                                                                                                                                                                                                                                                                                                                                                                                       -----AGCCTACCAATCACTGTTAGAACT 1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        :::|||||||
|CAGGCAACAAGTCCATGACACCATAGCCTAC 1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       :::|||
BACCATGAATCTGCATATCACTCCAGATCTCATC 1548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ccchhrcaghrcachrchcaaaaaccccaaa 1059
                                                                                                                                                                                                                                                                                                                                                                                     ilegluAspAspGlyGlulleleSerAspVal 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .-----AsnLys 558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   :GluAsnValValHisGluLeuGluLeuTyrAsn 618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tAsnSerPheAlaValPheGlnGluCysGlyLeu 638
                                                                                                                                                                                                                                                                                                       AsnvalvalileThrvalThrGlnArgAsnTyr 398
                                                                                                                                                                                                                                                                                                                                                                GlyAsnGlnLysMetGluAlaValGlnLysIle 418
                                                                                                                                                                                                                                                                                                                                                                                                                            PheLyslleGluPheProlleLeuGluAspSer 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LeuGlySerLysSerSerMetAlaValHisSer 458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ileGinLeuLysThrArgAspGluAsnijeLys 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WalvalSerGlyAsn------LysArg 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      511
                                                                                                                                                                                                                                            AlaThrvaiLysvalThrArgAlaAspGlyAsn 378
GlySerAlaAsnPheSerPheAsnAspGluGlu 298
                                                                                                                      ThrGluSerValThrGlyIleSerArgAsnVal 338
                                                                                                                                            AspryrilejjeGluPhePheAspTyrThrThr 358
                              GGAGATGGGAAAGCAACACTAAAAAAGAGATACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |SerArgG|yGlnLeuValAlaValG|yLys---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sAlaGluProSerGluLysValSerLeuArgIle
                                                              GlyLeuSerGluTyrLeuAspLeuSerSerPro
                                                                               GAGCTTGTTGGCATACTCTGTATGCATCT---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MetPheSerLeuThrProGluAsnSerTrpThr
```

2866 CCTGACACAGAAATTGAAACCAAGATTATCATCCAAG			923 GluGinAshMetileAshDehaAlaProAsnile 2986 GAGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		TILLUYSULYSULINEGUINITASDASILLEGULASGIALI : : : : : : : : :					999 AlaAspProTyrIleAspIleAspGlnAsnValLeuHi		1018 LysglyHisglnLysSerAsnGlygluPheTrpAspPr	::: ::: 3280 CTGAACAGGCAACAACAGAAAA	1038 LeuGlnGlyGlyAsnLysSerProValT	3340 ATGCAGGGAGGAATTCAAGGTGCTGAAGAAGAAGTATA	1055 SerLeuLeuGlyTyrArgLysTyrGl	3400 GCGTTGTTGGAATCCAAAACAATCTGCAATGACTATGT	1069 GlnGluSerIleHisPheLeuGluSerGluPheSerAr	3460 AAGAAGGCCACAAATTATTTACTCAAAAAGTATGAGAA	1089 LeuAlaLeulleThrTyrAlaLeuSerSerValGlySe	3517 ACAGCCTCACAGCCTATGCTTTGGCT	1109 AsnMetLeuThrTrpArgAlaGluGluGluGlyGlyMe	3559 AATGATGACAGGGTACTCATGGCAGCATCAACAGGAAG	1129 SerLysLeuSerAspSerTrpGlnProArgSerLeuAs	3607GAAGAATACAATGCTCACACACAAA		3655 TTGTTGGCCCTGCTGAAATGAAGAAATTTGATCAAAC	<pre>1169 SerArgGlnArgAsnSerLeuGlyGlyPheAlaSerTh ::: </pre>	3715 ACAGATCAGAATTTTTATGGGGAAACATATGGACAAAC	1189 LysAlaLeuSerGluPheAlaAlaLeuMetAsnThrGl	3775 caagcicifecréaratagagaticagaficcrácica	1208 ThrValThrGlyProSerSerProSerProLeu	ACTATTGAACTGCCAGATCGAGAAGTACCTAT	1219AlavalvalGinProMetAl 3895 CTCCTGGCTCGGACACTAGAGACCAAACTCAACCAAGA	
q	ò	ପ୍ର (8 8	3 8	à é	g §	ğ q	ò	a a	ò	ପ୍ର	ò	qq	ò	DP	δχ	qq	ò	Dp	ò	Ор	ò	qq	ζ	a	ò	යු	ò	qq	ò	q _Q	δλ	Q	ර් සි	•
	TrpValleuThrAspAlaAsnLeuThrLysAsp64	1882 GCTCTGACAACCAGCACTAATCTCAACACCAAACAGAGATCAGCTGCAAAGTGTCCTCAG 1941	649 649	1942 CCTGCAAATCGGAGGCGTCGCAGTTCTGTTTTGCTGCTTGACAGCAACGCAAGGCAAAGCG 2001	649 649	2002 GCAGAATTTCAGGATCAAGACCTGCGTAAATGCTGTGAAGATGTCATGAGAACCCC 2061		ATGGGGTACACTTGTGAAAA	TyrileAspGlyValTyrAspAsnAlaGluTyrAla	GCCTTCCTTGAATGCTGTCGCTACATCAAGGGGGTCCGAGATGAAAACCAACGGGAGAGC	GluargPheMetGluGluasnGluGlyHisileValAspIleHisAspPhe	GAGITGITICIGGCAAGAGATGATAATGAAGATGGTTTCATAGCAGATAGTGATATCATC	2242 TCh	3001.4.100.4.1.1.00.3.2.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	AAGGACTTGACCGAAGACCTAACAGACATTTTCAAGACATTTTTTTT	ValbrokanSerI] aThrSerTrnValllathrClarkerallocancinterior	CTGAGGGATTCCATCACAACCTGGGTGCTGCCTGTAAGCTTTACACCCACAAAGG 2400	LeuGlyLeuThrThrProValGluLeuGlnAlaPheGlnProPhePheIlePheLeu		AsnLeuProTyrSerValIleArgGlyGluGluPheAlaLeuGluIleThrIlePheAsn		773 TyrLeuLysAspAlaThrGluValLysValIleIleGluLysSerAspLysPheAspIle 792	GAAGTGGAACTGTTATACAACCCAGCCTTC	793 LeuMetThrSerSerGlulleAsnAlaThrGlyHisGlnGlnThrLeuLeuValProSer 812	2572TGCAGTGCTTCCACAAAAGGACAAAAGATACGACAGCTTCCCAATTAAAGCC 2625	813 GluAspGlyAlaThrValLeuPheProlleArgProThrHisLeuGlyGlulle 830	2626 CTGTCCTCCAGAGCAGTACCGTTTGTGATAGTCCCATTAGAGCAAGGATTGCATGATGTT 2685	831 ProlleThrValThrAlaLeuSerProThrAlaSerAspAlaValThrGlnMet1leLeu 850	::: ::: ::: GAGATTAAAGCAAGTCTGAGAAGAAAAAAAAAAAAAAAA		2746 GITGIACCTGAAGGGTACAGAAATCCATIGIGACTAITGITAAACTGGACCCAAGGGCA 2805	871 AsnArgLeuGlnSerThr	2806 AAAGGAGTTGGTGGAAACACAGCTAGAAGTGATCAAAGCCCGCAAATTAGATGACAGAGTG 2865	885 ProProAsnThrValThrGlySerGluArgValGlnIleThrAlaIleGlyAspValLeu 904	
a	δλ	qa	δ	q 0	δ	q C	ò	d	ઠે ટ	g G	ð á	3 6	<u> </u>	6	7 A	ò	a a	ò	· 원	δ	qq	δλ	đ	ò	QC	δ	đ	ò	qq	ζ	q	δŏ	đ	λò	

-----TyrlleLeuAspTyrLeu 939
GCCACCTACTACCTGGACACCACA 3045 GAAGCTGTCAATCAGATCGTGACT 3105 GlySerPheSerAlaPheGlyAsn 979 ValLeuArgCysPhe---LeuGlu 998 ThrLeuthralaTyrileValthr 1054 GlnProAsnIleAsp-----val 1068
GTCAATAGTCTAGACAGCAGCATC 3459 ArgGly11eSerAspAsnTyrThr 1088
::: | | | | | | | | | AAA---CTGCAAAGGCCTTACACT 3516 ATTATCACTCCTTCTGGCTGTGGG 2985 HisArgThrTyrThrTrpLeu--- 1017 ProGlyArgvalIleHisSerGlu 1037 |||::: AATGCCCTGTACTTTCTGGAACA 3339 ------GCTGCAGACCAACTC 3558 detGlnPheTrpValSerSerGlu 1128 AspileGluValAlaAlaTyrAla 1148 :::||||||| AACATTGAAGGCACTTCCTATGC 3654 ThrGlnAspThrThrValAlaLeu 1188 GGTGACCCTGTGGCTCAGATTATT 2925 rgrgaaggrgaaggrachdarr 3279 SerProLysAlaLysGluAlaLeu 1108 AGGGATCATTGG------3606 3luArg---ThrAshIleGlnVal 1207 ::: |||:: :: CATAAGGACTTAAACTTAGATATT 3834 1218 lleArgMetProTyrGlyCysGly 922 LysalaleuSerPheMetArgGln 959 ACAGAATTAATTATGAAAATGCT 3894

```
Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      382
                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                    4290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4590
                                                                                                                                            4110
                                                                                                                                                                                                   4170
                                                                                                                                                                                                                                                                                        1336
                                                                                                                                                                                                                                                                                                                                                 1355
                                                                                                                                                                                                                                                                                                                                                                                                        1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1421
                                                                                                                                                                      SerPheSerGlyProGlyArgSerGlyMetAlaLeuMetGluValAsnLeuLeuSerGly 1306
                                                                                                                                                                                                                              PhemetValProSerGluAlaIleSer------LeuSerGluThrValLys 1321
PheglyPhealaileCysGlnLeuAsnValValTyrAsnValLysAlaSerGlySerSer 1252
                                                                                                                                                                                                                                                                                                                                                                   |||::: ::::::|||:::||||
| GTCTCCCACTCTGAAGATGAATGCCTGCACTTTAAGATTCTCAAGCATTTTGAAGTTGGC
                                                                                                                                         ---AACATCCACTTGAATGCAATGGGAGCCCAAGGGAGCCCTCATGCTCAAGATCTGCACA
                                                                                                                                                                                        ::; ||||||||:::
4231 AGÀTATGAAGTTGACAATAATATGGCTCAGAAAGTAGCTGTTATCATTACTTAAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                      1356 AshThrGlnAspAlaSerValSerIleValAspTyrTyrGluProArgArgGlnAlaVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .253 ArgArgArgArgSerIleGlnAsnGlnGluAlaPheAspLeuAspValAlaValLysGlu
                                                                                                                                                                                                                                                                                          1322 LysvalGluTyrAspHisGlyLysLeuAsn---------LeuTyrLeuAspSer
                                                                                                                                                                                                                                                                                                                                                 VallasnGluThrGln---PheCysVallasnIleProAlaValArgAsnPheLysValSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgSerTyrAsnSerGluValLysLeuSerSerCysAspLeuCysSerAspValGlnGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4003 CAGGAGAAGGCAAATGTTTGCAATAAA-----TTTCATCTTAATGTTTCTGTTGAA---
                                                                                                                1273 AsnLysAspAspLeuAsnHisValAsp------LeuAsnValCysThr
                                                                                                                                                                                                                                                           4171 Tricrocorgangerdaagacctracaaggcritroraaaggagggagagaracatcroc
                                                                                                                                                                                                                                                                                                                                                                                                                                    1351 TTCATTCAGCCAGGATCAGTCAAGGTGTACAGCTACTACAATCTAGATGAAAAATGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  recesarerecagasaacererrectecteaaceareaagaargarereca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .------HisSerSerValllePhellePheCysPheLysLeuLeu
                           3955 GATGGAAAAGCAACAATGACATTTTGACATTCTATAACGCACAGTTG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      & NEUSTADT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 22202
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BREDEHORST, REINHORST
KOCK, MICHAEL
FRITZLIGER, DAVID
TITLE OF INVENTION: RECOMBINANT PROCVF
NUMBER OF SEQUENCES: 39
CORRESPONDENCE ADDRESS:
ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CysArgProCysGluAspGlyAlaSerGlySerHisHis-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P.C. STREET: 1755 S. JEFFERSON DAVIS HIGHWAY CITY: ARLINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: VOGEL, CARL-WILHELM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1, Application US/09925442
Patent No. 6607897
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TyrPheMetGlu 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4591 CGAATAGAAGAA 4602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-925-442-1
                                                                                                                                                                            1287
                                                                                                                                                                                                                                                                                                                                                    1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                            g
                                                                                   g
                                                                                                                                             d
                                                                                                                                                                          ò
                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              쉼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                             ò
                                                                                                                  8
```

```
547 ITCIIC---IGGCCIIACAAITIACCAGACCIIGICAGIIIGGGGACIIGGAGGAIIGIG 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      168 IleLysAspProLysSerAsnLeuIleGlnGlnTrpLeuSerGlnGlnSerAspLeuGly 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LeuThrLeuProSerLeuProLeuAsnSerAlaAspGluIleTyrGluLeuArgValThr 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |||| ::::::||| :::
|CTGCTGTTTTGCGAACAGACAGAAGAGCAATTTTGGTGGAAGGCCCATGGAGACAGT 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AlaAlaLeuAlaVal-------AlaProGlyProArgPheLeuValThrAla 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      108 GlyArgThrGlnAspGluIleLeuPheSerAsnSerThrArgLeuSerPheGluThrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -----TITCIGITIAICCAGACAGATAAAGGCATCIAIACACCAGGGTCTCCAGIACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          148 PheArgileValThrLeuPheSerAspPheLysProTyrLysThrSerLeuAsnIleLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        68 AsnLeuThrValSerValLeuGlublaGluGlyValPheGluLysGlySerPheLysThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ::: :::||||::: ;||||352 | :::
262 ATAGAGATTCCAGGCAAAATGAGTACGACTCCAGGCAAAATCAATATGTGGTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAAGTAACHGGTCCTCAAGTGAAATGGAAAAGGTGGTTCTCCTTTCTTACCAGAGTAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  128 ArgileServalpheileGlnThrAspLysAlaLeuTyrLysProLysGlnGluValLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      188 ValileSerLysThrPheGlnLeuSerSerHisProlleLeuGlyAspTrpSerIle---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         33 proglyllelleArgProGlyGlyAsnValThrileGlyValGluLeuLeu---GluHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             géridentatros de la contra del contra de la contra del la contra del la contra del la contra de la contra del la contra de la contra de la contra del la contra de la contra del la contra de la contra del la 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               --GlubeuLeuLysThrAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   211 CAAACCAGAGTAGATATGAATCCAGCAGGAGGCATGCTTGTCACT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5948
361
295
672
276
56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                  PRIOR APPLICATION DATA:

PRIOR APPLICATION NUMBER: 09/017,947

PLING DATE: «UNKNOWN»

ATTORNEY/AGENT INFORMATION:
NAME: OBLOW, NORMAN R

REGISTRATION NUMBER: 24,618

REFERENCE/DOCKET NUMBER: 1126-0107-0X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-020-095-4 (1-1428) x US-09-925-442-1 (1-5948)
                                        APPLICATION NUMBER: US/09/925,442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               52 CysproSerGlnValThrValLysAla-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ë
S
                                                                                           FILING DATE: 10-Aug-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear

MOLECULE TYPE: CDNA

SEQUENCE DESCRIPTION: SEQ ID
US-09-925-442-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: 703-413-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 5948 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: 703-413-2220
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       894.00
40.90%
22.51%
12.17%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SCOLE:
Percent Similarity:
Rest Local Similarity:
```

206

147 435 167 495

261

87

67

Tyrval 225 TATGTG 663 Metasn 242 GGCAAT 723 LLysGly 262 :::	8 8 9 9	SerPro 318 TCT 954 ASINAL 338 ACTGAG 999 ThrThr 358 CCCCAAA 1059	GLyAsn 378 ::: GGCTCA 1119 ASNTYY 398 GCCTTT 1155	111 112 12 13 147	GATTANG 1368 -Lysarg 492 -Lysarg 492
GlnValGlnValAsnAspGlnThrTyrTyrGlnSerPheGlnValSerGluTyrVal GCCAAATTGAAATTTTGATGTCAGGAAATTTTGATGTCAGGAAATTTTGTTGTGTCAGGAAATTTGTGTGTCAGGAAATATGTG LeuProLysPheGluValThrLeuGlnThrProbeuTyrCysSerMetAsn	AspValThrLeuThrPheLeuProLeuSerPheTrpGlyLysLysLysAsnIleGTGGCCTTTGTCCTCTTTGGAGTGAAAATGATGATGCTAAAAAAGAGTATTCCAGACThrLysThrPheLysIleAsnGlySerAlaAsnPheSerPheAsnAspGluGlu ::: ::: :::	MetLysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSerSerPro ::: :::	ValleuLysProSerLeuAsnPheThrAlaThrValLysValThrArgAlaAspGlyAsn	ASSET PLANCE OF SET OF THE STATE OF THE STAT	CAAACCCAGGAGGATTTGAAACTATCTTCATGAGCATTACATCTACAGAGATTAAG ValGlySer
207 - 226 LG G - 243 S G - 24		299 Mg 319 GJ 339 Sg 1000 GJ	359 Variable 1060 TR 379 GJ 1120 CC 1120 CC 399 TP		1309 CZ 479 VG 1369 CC 493 Le 1429 AT 512 1489 CC 527 Px
8 8 8 8 8	90 OS	40 00 40 60 00 00	ò a ò a ò	8 8 8 8 8 8	8 8 8 8 8 8 8

547	LeulyslleProvalGinsnilys 558
559	IleLysLeuTyrTrpSerLysValLysAlaGluProSerGluLysValSerLeuArgIle 578
579	ServalThrGlnProAspSerlleValGlylleValAlaVe GeaGGGGATCCAGGTGCTCGGGTTGGTCTTGTGTGTGTGTGTG
599	MetasnalaSerasnaepileThrMetGluAsnValValHisGluLeuGluLeuTyrasn 618
619	ThrGlyTyrTyrLeuGlyMetPheMetAsnSerPheAlaValPheGlnGluCysGlyLeu 638
639	TrpvalleuthraspalaasnleuThrLysasp
649	649
1942	CCTGCAAATCGGAGGCGTCGCAGTTCTGTTTTGCTGCTTG
649	
2002	GCAGAATTTCAGGATCAAGACCTGCGTAAATGCTGTGAAGATGTCA
649	649
2062	ATGGGGTACACTTGTGAA
650	GCCTTCCTTGAATGCTGTCGCTACAACAA
662	GluargPheMetGludluasnGluGlyHislleValAsplleHisAspPhe 678
679	SerLeuGlySerSerProHisValArgLysHisPheProGluThrTrplleTrpLeu 697
1 6	ICA
00	ASSACTIGACCGAGGAGCCTAACAGCATTTCAAGCAAGACATGTTTTAT 23
713	ValProAspSerIleThrSerTrpValAlaThrGlyPheValIleSerGluAspLeuGly 732 ::: :::
733	LeuGlyLeuThrThrProValGluLeuGlnAlaPheGlnProPhePheIlePheLeu 752
753	AsnLeuProTyrSerValileArgGlyGluGluPheAlaLeuGluIleThrilePheAsn 772
773	pLysPheAspile 79 AGCCTTC 25
793	LeuMetThrSerSerGlulleAsnAlaThrGlyHisGlnGlnThrLeuLeuValProSer 812
813	GluAspGlyAlaThrValLeuPheProlleArgProThrHisLeuGlyGluIle 830

3655	Oy 1169 SerArgGlnArgAsnSer	1189	3775 CAAGCTC	Oy 1208 ThrValThrGlyProSer	0.000 0.000 0.000	3895 CTCCTGGC	Qy 1233 PhedlyPheAlaIleCys	Db 3955 GATGGAAAAGCAACAATG	1253	4003		UD 4054AACAICCACIIGAA:	4111	Qy 1307 PheMetValProSerGlu	4171	Oy 1322 LysValGluTyrAspHis	4231 AGATATGAAGTTGAC	Qy 1337 ValAsnGluThrGln	1356	4351	Qy 1376 ArgSerTyrAsnSerGlu	Db 4411 AAGTTCTACCATCCAGAT	Qy 1396 CysArgProCysGluAsp	Db 4471 TGCCGATGTGCAGGAGAA	Oy 1409	DD 4531 TTACAAATTGAAAAGCC	Oy 1422 TyrPheMetGlu 1425	Db 4591 CGAATAGAAGAA 4602	RESULT 13 US-08-447-411-44	; Sequence 44, Application US/08; patent No. 5773243	APPLICANT: FRITZINGER, DAV APPLICANT: BREDEHORST, REI	
	Proi		851 VallysAlaGluGly1leGluLysSexTyrSexGlnSexIleLeuLeuAspLeuThrAsp 870	AsnArgLeuGlnSerThr	2806 AAAGGAGTIGGIGGAACACAGCIAGAAGIGATCAAAGCCCGCAAATTAGATGACAGAGIG 2865	ProProAsnThrValThrGlySerGluArgValGinIleThrAlaIleGlyAspValLeu 904	CCTGACACAGAAATTGAAACCAAGATTATCATCCAAGGTGACCCTGTGGCTCAGATTATT	905 GlyproSerlleAsnGlyLeuAlaSerLeulleArgMetProTyrGlyCysGly 922 3006 GAAAA CHOTAA	93.9			3046 GAGCAGCAGAACTCTCGCCATAAATCGCAGGACTGAAGCTGTCAATCAGATCGTGACT 3105	GlyTyrGlnArgGluLeuLeuTyrGlnArgGluAspGlySerPheSerAlaPheGlyAsn	3106 GGTTATGCCCCAGCAGATGGTGTACCAAGAAAGCAGATCATTCCTATGCAGCATTTACAAAC 3165	980 TyrasproSerGlySerThrTrpLeuSerAlaPheValLeuArgCysPheLeuGlu 998 	101101	GCCAAAATGGTAGCAGGCATTAGTCATGAAATCATTGTGGAGGTGTGAGGTGCTGATT		3280 CTGBACAGGCAACCAGATGGAGCGTTCAAAGAAATGCCCCTGTACTTTCTGGAACA 3339		agggaggaattcaaggtgctgaagaagtatatttaacagctttcattctggtt 339		GCGȚTGTTGGAATCCAAAACAATCTGCAATGACTATGTCAATAGTCTAGACAGCAGCATC 345	GlnGluSer1leHisPheLeuGluSerGluPheSerArgGly1leSerAspAsnTyrThr 108	AAGAAGGCCACAAATTATTACTCAAAAAGTATGAGAAACTGCAAAGGCCTTACACT 351	LeuAlaLeulleThrTyrAlaLeuSerSerValGlySerProLysAlaLysGluAlaLeu 110	ACAGCCCTCACAGCCTATGCTTTGGCTGCTGCAGCCAACTC 355	1109 AsnMetLeuThrTrpArgAlaGluGluGluGluGlyGlyMetGlnPheTrpValSerSerGiu 1128	saleacados la calegoraca caacados cales dos secuentes de calegoración. Calegoración se calegoración de calegor	::: ::: ::: ::: :::	1149 LeuLeuSerHisPheLeuGlnPheGlnThrSerGluGlylleProlleWetArgTrpLeu 1168	
qq	ò	qq	8 8	8	qq	ò	g	දු ද	g è	3 A	ò	Db	à	qq	\$ 5	3 2	à á	λŏ	qq	ζ	qq	δλ	g	à	đ	ò	qq	ò à	9 8	· 6	ò	•

```
1408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1421
                                                                                                               1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         yArgSerGlyMetAlaLeuMetGluValAsnLeuLeuSerGly 1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ||| || ||| ||| c:::::::::::||| ||| |||| ctgattctatgatatttctatgctgactggt 4170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ryalSerIleValAspTyrTyrGluProArgArgGlnAlaVal 1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .uValLysLeuSerSerCysAspLeuCysSerAspValGlnGly 1395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATABAGGAACAGGCCTTCTCAATAAGATATGTATTGGTAACGTT 4470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : ::|||
| .::|||| | .::||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4590
AATGAAGAAATTTGATCAAACTGGTCCCATAGTCAGATGGCTG 3714
                                      rLeuGlyGlyPheAlaSerThrGlnAspThrThrValAlaLeu 1188
                                                                    TGGGGAAACATATGGACAAACCCAAGCAACAGTTATGGCATTT 3774
                                                                                                                                    rSerProSerProLeu----- 1218
                                                                                                                                                                                                                                                           IGInPro------MetAlaValAsnIleSerAlaAsnGly 1232
                                                                                                                                                                                                                                                                                    |:::
AGAGACCAAACTCAACCAAGACATCACTGTGACAGCATCAGGT 3954
                                                                                                                                                                                                                                                                                                                                   sGlnLeuAsnValVyrAsnValLysAlaSerGlySerSer 1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 uAlaileSer------beuSerGluThrValLys 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ::::::
AGACCTTACAAGGCTTTCTAAAGGAGTGGACAGATACATCTCC 4230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : ::|||||:::
TAATATGGCTCAGAAAGTAGCTGTTATCATTTACTTAAACAAG 4290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -PheCysValAsnileProAlaValArgAsnPheLysValSer 1355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ||||:::::|||
atgaatgcctgcactttaagattctcaagcattttgaagttgcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----HisserSerValllePhellePheCysPhelysLeuLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nHisValAsp------LeuAsnValCysThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pglyAlaSerglySerHisHis------
                                                                                                             eAlaAlaLeuMetAsnThrGluArg---ThrAsnIleGlnVal
                                                                                                                                                                                                                          TCGAGAAGTACCTATAAGGTACAGAATTAATTATGAAAATGCT
                                                                                                                                                                                                                                                                                                                                                                :::
GACCATTTTGACATTCTATAACGCACAGTTG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8447411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AVID C.
EINHARD
```

```
000 CAAAGCGGCATTCATATTGTGGCATCTCCCTATCAGATCCACTTCACAAAAACCCCCAAA 1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           060 TATTICAAGCCAGGAATGCCATATGAACTGACGGTGTATGTTACCAACCCTGATGGCTCA 1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ValLeuLysProSerLeuAsnPheThrAlaThrValLysValThrArgAlaAspGlyAsn 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           379 GlnLeuThrLeuGluGluArgArgAsnAsnValVallleThrValThrGlnArgAsnTyr 398
                                      LeuThrLeuProSerLeuProLeuAsnSerAlaAspGluIleTyrGluLeuArgValThr 107
                                                             322 CAAGTAACTGGTCCTCAAGTGAATTGGAAAAGGTGGTTCTCCTTTCTTACCAGAGTAGC 381
                                                                                                                                                                                 ArglleSerValPheileGinThrAspLysAlaLeuTyrLysProLysGlnGluValLys 147
                                                                                                                                                                                                                    -----TTTCTGTTTATCCAGACAGATAAAGGCATCTATACACCAGGGTCTCCAGTACTC 435
                                                                                                                                                                                                                                                          PhearglleValThrLeuPheSerAspPheLysProTyrLysThrSerLeuAsnlleLeu 167
                                                                                                                                                                                                                                                                                168 IleLysAspProLysSerAsnLeuIleGlnGlnTrpLeuSerGlnGlnSerAspLeuGly 187
                                                                                                                                                                                                                                                                                                                                                       547 IICTIC---IGGCCTIACAATTTACCAGACCTIGICAGTTIGGGACTIGGAGGATTGIG 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuProLysPheGluValThrLeuGlnThrPro-----LeuTyrCysSerMetAsn 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         243 SerLysHisLeuAsnGlyThrileThrAlaLysTyrThrTyrGlyLysProValLysGly 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ---GAAAATTTCCACGTGTCTATCACTGCAAGGTACTTGTATGGAGAGGAAGTGGAAGGT 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781 ---GTGGCCTTTGTCCTCTTTGGAGTGAAATAGATGGTGGTGAAAAAGAGTGTTTCCAGAC 837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        281 -----ThriysThrPheLysIleAsnGlySerAlaAsnPheSerPheAsnAspGluGlu 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           838 TCACTCACGAGAATTCCGATTATTGATGGAGATGGGAAAGCAACACTAAAAAGAGATACA 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MetLysAsnValMetAspSerSerAsnGlyLeuSerGluTyrLeuAspLeuSerFro 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           898 TICCGITCICGATITCCAAATCICAATGAGCTIGTIGGGCATACICTGTAGTACATCTCA--- 954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       319 GlyProValGluIleLeuThrThrValThrGluSerValThrGlyIleSerArgAsnVal 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              339 SerThrAsnValPhePheLysGlnHisAspTyrIleIleGluPhePheAspTyrThrThr 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 399 ThrGluTyrTrpSerGlySerAsnSerGlyAsnGlnLysMetGluAlaValGlnLysIle 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        419 AsnTyrThrValProGlnSerGlyThrPheLysIleGluPheProIleLeuGluAspSer 438
                                                                                                            108 GlyArgThrGlnAspGluIleLeuPheSerAsnSerThrArgLeuSerPheGluThrLys
                                                                                                                                                                                                                                                                                                                                                                                                       188 ValileSerLysThrPheGlnLeuSerSerHisProlleLeuGlyAspTrpSerIle---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ---GlnValGlnValAsnAspGlnThrTyrTyrGlnSerPheGlnValSerGluTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Triccaagerrraaagreegrerideaaecareagagagagrrrrrraearraagagaar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ---GCCCATGTGCCAGTGGTATCAGAGGCCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 263 AspValThrLeuThrPheLeuProLeuSerPheTrpGlyLysLysAsnIle----
   211 CAAACCAGAGTAGATATGAATCCAGCAGGAGGCATGCTTGTCACT-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1120 CCAGCT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        359
                                                                                                                                                                                                                                                          148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            724
                                                                                                                                                                                                                      382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               207
                                                                                                                                        임
                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                               g
                                                                                                  ò
                                                                                                                                                                       8
                                                                                                                                                                                                                                                     8 6
                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ctrecterrineceaacacacacagaagagcaaatrinegregadgcccarggagacagr 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AlaAlaLeuAlaVal------AlaProGlyProArgPheLeuValThrAla 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31 GCTGCTCTATTGATTGGTTTTCCAGGGTCTTCTCATGGGGCTCTCTACACCCTCATCACC 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ProGlyIlelleArgProGlyGlyAsnValThrileGlyValGluLeuLeu---GluHis 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      52 CysProSerGlnValThrValLysAla-------GluLeuLeuLysThrAlaSer 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AsnLeuThrValSerValLeuGluAlaGluGlyValPheGluLysGlySerPheLysThr
APPLICANT: VOGEL, CARL-WILHELM
TITLE OF INVENTION: DNA BNCODING COBRA C3, CVF1, AND CVF2
NUMBER OF SEQUENCES: 81
CORRESPONDENCE ADDRESS:
                                                                     : OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,
: P.C.
1755 S. Jefferson Davis Highway, Suite 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5924
359
296
673
276
56
                                                                                                                                                                                                COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/447,411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-020-095-4 (1-1428) x US-08-447-411-44 (1-5924)
                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US 08/043,747
FILING DATE: 07-ARR-1993
ATTORNEY/AGENT INFORMATION:
NAME: OBLON, NO. 5773243mn F.
REGISTAATION NUMBER: 24,618
REFERENCE/DOCKET NUMBER: 1126-101-0
TELEPHONE: (703) 413-2000
TELEFAX: (703) 413-2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELER 248955 OPAT UR
TELER: 248955 OPAT UR
INFORMATION FOR SEQ ID NO: 44:
SEQUENCE CHARACTERISTICS:
LENGTH: 5924 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.56e-84
885.00
40.84%
22.38%
12.04%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: nucleic acid
STRANDEDNESS: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4..4929
                                                                                                                             CITY: Arlington
STATE: Virginia
COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: E
LOCATION: 4
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY:
;
;
;
US-08-447-411-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

Qy 698AspThrAsnMetGlyTyrArg] Db 2281 AAGGACTTGACCGAGGAGCCTAACAGTCAAGGGATT	Oy 713 ValProAspSerIleThrSerTrpValAlaThrGlyE 52341 CTGAGGGATTCCATCACAACCTGGGTGGTGCTGGCT	733	24 753 24 758 28 3	773 2518	Cy 793 LeumetThrserserGlulleAsnAlaThrGlyHise Db 2572TGCAGTGCTTCCACAAAGGACAAAGATACT	Oy 813 GluAspGlyAlaThrValLeuPheProIleArgPro1 Db 2626 CTGTCCTCCAGAGCAGTACGTTTGTGATAGTCCCAT	Qy 931 ProlleThrValThrAlaLeuSerProThrAlaSerP	Oy 851 VallysAlaGluGlylleGluLysSerTyrSerGlnE	Qy 871 AsnargLeuGlnSerThr	Qy 885 ProProAsnThrValThrGlySerGluArgValGlnI	Oy 905 GlyProSerlleAsnGlyLeuAlaSerLeuI	Oy 923 GluGlnAsnWetileAsnPheAlaProAsnIle Db 2986 GAGCAAAAATATGATCCGCATGGCGCACCAGTTATTC			Db 3106 GGTTATGCCCAGCAGATGGTGTACAAGAAAGCAGATC Qy 980 TyrAspProSerGlySerThrTrpLeuSerAlaPhev	999	Qy 1018 LysGlyHisGlnLysSerAsnGlyGluPheTrpAspF
439 SerGluLeuGlnLeuLysAlaTyrPheLeuGlySerLysSerSerMetAlaValHisSer 458	1249 AACCATGGAGACCTCCCCAAGAGACGCCAGGCAACAACAAGTCCATGACCGTAC 1308 459 LeuphelysSerProSerLysThrTyrIleGlnLeuLysThrArgAspGluAsnIleLys 478 1309 CAAACCAAGAGAGAAACTTAAACTTAAGTTCAAAAGTTAAG 1368	ValG1ySerbroPheGluLeuValValSerG1yAsnbysArg	493 LeuLysGluLeuSerTyrMetValValSerArgGlyGlnLeuValAlaValGlyLys 511	512GlnasnserThrMetPheSerLeuThrProGluasnSerTrpThr 526	527 ProLysAlaCysValileValTyrTyrileGluAspAspGlyGluleIleSerAspVal 546	547 LeuLysIleProValGln	IleLysLeuTyrTrpSerLysValLysAlaGluProSerGluLysValSerLeuArglle	1669 AFACAAATG		619 ThrGlyTyrTyrLeuGlyMetPheMetAsnSerPheAlaValPheGlnGluCysGlyLeu 638			1942 CCTGCAAATCGGAGGCGTCGCAGTTCTGTTTTGCTGCTTGACAGCAACGCAAGCAA	2002 GCÀGAATTTCAGGATCAAGACCTGCGTAAATGCTGTGAAGATGTCATGCATG	2062 ATGGGGTACACTTGTGAAAAGCGTGCAAAATACATCCAGGAGGGAG	2122 GCCTTCCTTGAATGCTGTCGTÄCÄTČAAGĠĠĠĠTĊCGAĠĀTGAAĀĠCAACGGGAGĀGC 2181 662 GluārgPheMetGluGluāsnGluGlyHisIleValāsplleHisāspPhe 678	2182 GAGTTGTTTCTGGCAAGAGATGATAAAGATGGTTTCATAGCAGATAGTGATATCTC 2241 679 SerLeuGlySerSerProHisValArgLysHisPheProGluThrTrplleTrpLeu 697

TTCAAGCAAGACAATGTCTTTTTAT 2340 uLysalaLeuSerPheMetArgGln 959
:::|||:::::
TGAAGCTGTCAATCAGATCGTGACT 3105 pProGlyArgvallleHisSerGlu 1037 TGTAAGCTTTACACCCACCAAAGGG 2400 ::::||| |CCGACAGCAGTTCCCAATTAAAGCC 2625 AGACGGTGTGAGGAAGAAACTGAAA 2745 TATTGTTAAACTGGACCCAAGGGCA 2805 AGGTGACCCTGTGGCTCAGATTATT 2925 :|||:::::: TGTCGTAAAGTCTTTGCCATGGCT 3219 uHisArgThrTyrThrTrpLeu--- 1017 TTGTGGAGGTGTGAGGTGGCTGATT 3279 . AAATGCCCCTGTACTTTCTGGAACA 3339 aPheGlnProPhePheIlePheLeu 752
::: |||||||||||||
CATGAAAGTCTTCTTCATTGATCTT 2457 GGAGATTCGAGCTATTCTGCACAAC 2517 GTTATACAACCCAGCCTTC---- 2571 AGCCCGCAAATTAGATGACAGAGTG 2865 CATTATCACTCCTTCTGGCTGTGGG 2985 receacciacraccideacaccaca 3045 lThrLeuThrAlaTyrIleValThr 1054 eAlaLeuGluIleThrIlePheAsn 772 sGlnGjnThrLeuLeuValProSer 812 oThrHisLeuGly-----GluIle 830 raspalavajThrGlnMetileLeu 850 pGlyserPheSerAlaPheGlyAsn 979 eGluLysSerAspLyspheAspIle 792 nSerileLeurenAspLeuThrAsp 870 -LeulysThrieuSerPheSerPhe 884 uileArgMetProTyrGlyCysGly 922 -----TyrileLeuAspTyrLeu 939 evalLeuArgCysPhe---LeuGlu 998 gileTyrGlnGluPheGluValThr 712 nileThrAlaileGlyAspValLeu 904 yPheVallleSerGluAspLeuGly

```
ArgSerTyrAsnSerGluValLysLeuSerSerCysAspLeuCysSerAspValGlnGly 1395
                                                                                                                           ::: |||::: :: |:|
4411 AAGTTCTACCATCCAGATAAAGGAACAGGCCTTCTCCAATAAGATATGTATTGGTAACGTT 4470
                                                                                                                                                                                                                                                                                    4471 TGCCGATGTGCAGGAGAACCTGTTCCTCGCTCAACCATCAGGAAAGGATTGATGTTCCA 4530
4351 TTCATTCAGCCAGGATCAGTCAAGGTGTACAGCTACTACAATCTAGATGAAAAATGTACC 4410
                                                                                                                                                                                                                                                                                                                                                   ------HisSerSerValllePhellePheCysPheLysLeuLeu
                                                                                                                                                                                                                                                                                                                                                                                                4531 TTACAAATTGAAAAAGCCTGCGAGACGAATGTGGATTATGTCTACAAAACCAAGCTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 14
US-08-447-411-75
IS-08-447-411-75
Sequence 75, Application US/08447411
Patent No. 5773243
GENERAL INFORMATION:
PAPPLICANT: FRITZINGER, DAVID C.
APPLICANT: BREDEHOKST, REINHARD
APPLICANT: UGGEL, CARL-WILHELM
TITLE OF INVENTION: DNA ENCODING COBRA C3, CVF1, AND CVF2
NUMBER OF SEQUENCES: 81
CORRESPONDENCES: 81
CORRESPONDENCES: 81
CORRESPONDENCES: 81
CORRESPONDENCES: 91
CORRESP
                                                                                                                                                                                                                CysArgProCysGluAspGlyAlaSerGlySerHisHis-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1: 1755 S. Jefferson Davis Highway, Suite 400 Arlington Virginia
Virginia
Virginia
Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/447,411
FILING DATE:
CLASSIFICATION NUMBER: US 08/043,747
FILING DATE: 07-APR-1993
ATTORNEY/AGENT INFORMATION:
AND ATTORNEY/AGENT AND ATTORN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Oblon, No. 573243man F.
REGISTRATION NUMBER: 24,618
REGISTRATION NUMBER: 1126-101
TELECOMOUNICATION INFORMATION:
TELEPAC: (703) 413-3000
TELEFAX: (703) 413-220
TELEFAX: 24885 OPAT UR
INFORMATION FOR SEQ ID NO: 75:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3.6e-72
768.50
41.88%
24.74%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4138 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1422 TyrPheMetGlu 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4591 CGAATAGAAGAA 4602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nucleic acid
                                                                                                                                                                                                                                                                                                                                                           1409 -----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-447-411-75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: 1
STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET:
                                                                                                                                                                                                                    1396
                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                  셤
                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3775 CARGCTCTTGCTGAATATGAGATTCAGATGCCTACCCATAAGGACTTAAACTTAGATATT 3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LysValGluTyrAspHisGlyLysLeuAsn-------LeuTyrLeuAspSer 1336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ::: ||| ||||:::
AGATATGAAGTTGACAATAATATGGCTCAGAAAGTAGCTGTTATCATTTACTTAAACAAG 4290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ValAsnGluThrGln---PheCysValAsnIleProAlaValArgAsnPheLysValSer 1355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AsnThrGlnAspAlaSerValSerIleValAspTyrTyrGluProArgArgGlnAlaVal 1375
   3340 ATGCAGGAGGAATTCAAGGTGCTGAAGAAGAAGTATATTAACAGCTTTCATTCTGGTT 3399
                                                                                                                                                        3400 GCGTTGTTGGAATCCAAAACAATCTGCAATGACTATGTCAATAGTCTAGACAGCAGCACC 3459
                                                                                                                                                                                                                                                         1069 GlnGluSerlleHisPheLeuGluSerGluPheSerArgGlyIleSerAspAsnTyrThr 1088
                                                                                                                                                                                                                                                                                                   1089 LeualaiteulleThrTyralaieuSerSerValGlySerProLysAlaiysGluAlaieu 1108
                                                                                                                                                                                                                                                                                                                                                                                                                                         SerArgGlnArgAsnSerLeuGlyGlyPheAlaSerThrGlnAspThrThrValAlaLeu 1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LysAlaLeuSerGluPheAlaAlaLeuMetAsnThrGluArg---ThrAsnIleGlnVal 1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1233 PheglyPheAlaIleCysGlnLeuAsnValValTyrAsnValLysAlaSerGlySerSer 1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1253 ArgArgArgArgSerIleGlnAsnGlnGluAlaPheAspLeuAspValAlaValLysGlu 1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AsnLysAspAspLeuAsnHisValAsp------LeuAsnValCysThr 1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1287 SerPheSerGlyProGlyArgSerGlyMetAlaLeuMetGluValAsnLeuLeuSerGly 1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PheMetValProSerGluAlaIleSer-------LeuSerGluThrValLys 1321
                                                                                                            1055 SerieuleuGlyTyrArg-----Val 1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1109 AsnMetLeuThrTrpArgAlaGluGlnGluGlyGlyMetGlnPheTrpValSerSerGlu 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3559 AATGATGACAGGGTACTCATGGCAGCATCAACAGGAAGGGATCATTGG------ 3606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ::: |:|||||||
-------GAAGAATACAATGCTCACACCCACAACATTGAAGGCACTTCCTATGCC 3654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3895 CICCIGGCICGGACAĠTAGAGACCAAACICAACCAAGACAICACIGIGACAĠĆAICAĠĠT 3954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ------AlavalvalGlnPro------MetAlavalAsnIleSerAlaAsnGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1129 SerLysLeuSerAspSerTrpGlnProArgSerLeuAspIleGluValAlaAlaTyrAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1149 LeuLeuSerHisPheLeuGlnPheGlnThrSerGluGlyIleProileMetArgTrpLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ThrvalThrGlyProSerSerProSerProLeu---------------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3955 GATGGAAAAGCAATGACCATTTTGACATTCTATAACGCACAGTTG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                   δ
                                                                                                                                                                           임
                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ଚ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
```

à 원 à qq ò g ò g 8 6

ò g ઠે g 장염 à 8 8 9

8

à g ò 임 δ g

<i>~</i>	δί δι 	Ö 🖺			<u> </u>	<u> </u>	O 1		. <u>О</u>	О Д		Δ. ————											-	-	
885 ProProAsnThrValThrGlySerGluArgValGlnIleThrAlaileGlyAspValLeu 904 	905 GlyProSerileAsnGlyLeuAlaSerLeulleArgMetProTyrGlyCysGly 922 1974 GAAAACTCAATTGAAGAAGTAAACTCAACCATTATCATTATGCTGGGG 2033	GluGlnAsnMetIleAsnPheAlaProAsnIleTyrIleLeuAspTyrLeu		240 INTIPELYSUIDSUIDSUIDSUIDSUIDSUIDSUIDSUIDSUIDSUID	960 GlyryrGlnArgGluLeuLeuTyrGlnArgGluAspGlySerPheSerAlaPheGlyAsn 979		101		1018 LysGlyHisGlnLysSerAsnGlyGluPheTrpAspProGlyArgYallleHisSerGlu 1037	038 LeuGlnGlyGlyAsnLysSerProValThrLeuThrAlaTyrIleValThr		1055 SerLeuleuGlyTyrArgLysTyrGlnProAsnIleAspValGlnGluSerIleHisPhe 1074		::: 2493 CTAGACAGCAGCATCAGTAAGGCCACAGATTATTTACTCAAAAAGTATGAGAAACTGCAA 2552	1085 ASPASNTYTHTLEUAlaLeuIleThtTyrAlaLeuSerSerValGlySerProLysAla 1104	lyMetGl 112	2595 GCAGAACGACTCAATGATGACAGGGTACTCATGGCAGCATCAACAGGAAGGA	nPheTrpValSerSerGluSerLysLeuSerAspSerTrpGlnProArgSerLeuAspIl 114	268	1142 eGluvalhlaAlaTyzAlaLeuLeuSerHisPheLeuGlnPheGlnThrSerGluGLyII 1162 1142 eGluvalhlaAlaTyzAlaLeuLeuSerHisPheLeuGlnPheGlnThrSerGluGLyII 1162 2684 fGAAGGCACTTCCTATGCCTTGTTGCCCTGCTGAAAATGAAAAATTTGTTGAGGCCGG 2743		2744 TCCTGTAGTCCAATGGCTGATAGATCAGCAATATTATGGGGGAACATATGGACAAACCAA 2803	1182 nAspIhrIhrValAlaLeuLysAlaLeuSerGluPheAlaAlaLeuMetAsnIhrGluAr 1202 1182	ACCAACAGITALGAIGITICAAGCICIIGAAGATAIGAGAATATGAGATCAGATGACCAACAACAAGAAGATGAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAA	2864 GGACTTAAACTTAGATTTGAACTGCCAGATCGAGAAGTACCTATAAGGTACAG 2923
oy Db	දු දු	3 8	<u>අ</u>	<u>8</u>	જે દ	8 8	8 8	<u>8</u>	8 8	\$ 8	Dp	8 8	ò	СP	रुं र	8 8	Бр	ò	qq	දු දු	ò	qq	ði	9 6	දු දු

```
1348 aValArgAsnPheLysValSerAsnThrGlnAspAlaSerValSerIleValAspTyrTy 1368
                                                                                                                                                                                                                                                                                   ::::::::|||:::|||
3386 TCTCAAGCATTTTGAAGTTGGCTTCATTCAGCCAGGATCAGGTCAAGGTGTACAGGTACTACTA 3445
                                                                                                                                                                                                                                                                                                        rGluProArgArgGlnAlaValArgSerTyrAsnSerGluValLysLeuSerCysAs 1388
                                                                                                                                                                                                                                                                                                                   3446 CANTURGANGAAAANGNACCAAGANCTACCANTCCAGANGAAGAAGAACGACCTTUTCAA 3505
                              1318 uThrvalLysLys------GlyLy 1329
                                                                                                                                                                                                               1329 sLeuAsnLeuTyrLeuAspSerValAsnGluThrGln---PheCysValAsnIleProAl 1348
                                                               1246 lLysAlaSerGlySerSerArgArgArgArgSerlleGlnAsnGlnGluAlaPheAspLe 1266
                                                                                                               3086 TGATGTTTCTGTTGAAACGTCCAGTTGAACTTAAAGAGGCAAAGGGAGCCAAGGGAGC 3145
         2924 AATTAATTATGAAAATGCTCTCCTGGGTCAGAGAGGAGGAGGAGGAACTCAAGGAAGATT 2983
pleuCysSerAspValGlnGlyCysArgProCysGluAspGlyAlaSer, 1404
                                                                                                                                                                                                                                                                                                                                                    1368
                                                                                                                                                                                                                                                                                                                                            1388
                                               셤
              S B
```

Search completed: August 18, 2004, 05:37:38 Job time : 718 secs

us-10-020-095-4.rapb

```
August 10, 2004, 19:31:34; Search time 57 Seconds (without alignments) 7858.583 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                         US-10-020-095-4
7348
1 MQGPPLLTAAHLLCVCTAAL......HSSVIFIFCFKLLYFMELML 1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Published Applications AA:*

1: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
2: /cgn2_6/ptodata/2/pubpaa/PCT_NEW PUB.pep:*
3: /cgn2_6/ptodata/2/pubpaa/US07_NEW PUB.pep:*
4: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*
5: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*
6: /cgn2_6/ptodata/2/pubpaa/US07_NEW PUB.pep:*
7: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
8: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
9: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
11: /cgn2_6/ptodata/2/pubpaa/US09F_PUBCOMB.pep:*
11: /cgn2_6/ptodata/2/pubpaa/US09F_PUBCOMB.pep:*
11: /cgn2_6/ptodata/2/pubpaa/US09F_PUBCOMB.pep:*
13: /cgn2_6/ptodata/2/pubpaa/US09F_PUBCOMB.pep:*
14: /cgn2_6/ptodata/2/pubpaa/US108_PUBCOMB.pep:*
15: /cgn2_6/ptodata/2/pubpaa/US108_PUBCOMB.pep:*
16: /cgn2_6/ptodata/2/pubpaa/US108_PUBCOMB.pep:*
17: /cgn2_6/ptodata/2/pubpaa/US108_PUBCOMB.pep:*
18: /cgn2_6/ptodata/2/pubpaa/US108_PUBCOMB.pep:*
18: /cgn2_6/ptodata/2/pubpaa/US108_PUBCOMB.pep:*
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1291235 segs, 313682936 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                 OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                           BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                             Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Database :
                                                                                                                                                                                                                                                                                                                                                                                             Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Searched:
                                                                                                                                                                                                  Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

STIMMARTES

Sequence 15, Appli Sequence 66, Appli Sequence 66, Appli Sequence 10, Appli Sequence 11, Appli Sequence 12, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli Sequence 20, Appli Sequence 20, Appli Sequence 21, Appli Sequence 21, Appli Sequence 21, Appli Sequence 21, Appli Sequence 22, Appli Sequence 24, Appli Sequence 24, Appli Sequence 27, Appli Sequence 27, Appli Sequence 27, Appli Sequence 27, Appli Sequence 27, Appli Sequence 10, Appli Sequence 27, Appli Sequence 27, Appli Sequence 67, Appli Sequence 67, Appli Sequence 67, Appli Sequence 67, Appli Sequence 68, Appli Sequence 61, Appli	
US-10-292-081A-15 US-09-873-403-5 US-09-873-403-5 US-10-170-386-405 US-10-096-625-66 US-10-608-397-10 US-10-608-397-12 US-10-608-397-13 US-09-750-722-081A-12 US-10-292-081A-12 US-10-292-081A-11 US-10-39-972-211-68 US-10-39-972-211-78 US-10-39-972-211-78 US-10-39-972-211-78 US-10-39-972-211-78 US-10-	
1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
11444444444444444444444444444444444444	
00000000000000000000000000000000000000	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
11111000000000000000000000000000000000	

ALIGNMENTS

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 RLSFETKRISVFIQTDKALYKPKQEVKFRIVTLFSDFKPYKTSLNILIKDPKSNLIQQWL 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 SQQSDLGVISKTFQLSSHPILGDWSIQVQVNDQTYYQSFQVSEYVLPKFEVTLQTPLYCS 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MQGPPLITAAHLLCVCTAALAVAPGPRFLVTAPGIIRPGGNVTIGVELLEHCPSQVTVKA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MQGPPLLTAAHLLCVCTAALAVAPGPRFLVTAPGIIRPGGNVTIGVELLEHCPSQVTVKA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RLSFETKRISVFIQTDKALYKPKQEVKFRIVTLFSDFKPYKTSLNILIKDPKSNLIQQWL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 SQQSDLGVISKTFQLSSHPILGDWSIQVQVNDQTYYQSFQVSEYVLPKFEVTLQTPLYCS
                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                       Query Match 45.7%; Score 3360; DB 15; Length 665; Best Local Similarity 100.0%; Pred. No. 2.4e-267; Matches 657; Conservative 0; Mismatches 0; Indels 0
                             Sequence 3396, Application US/10108260A,
Publication No. US20040005560A1
GENERAL INPORMATION:
APPLICANT: HELIX RESEARCH INSTITUTE
TITLE OF INVENTION: No. US20040005560A1e1 full length cDNA
FILE REFERENCE: H1-A0106
CURRENT FILING DATE: 2002-03-27
NUMBER OF SEQ ID NOS: 5458
SEQ ID NO 3396
LENGTH: 665
                                                                                                                                                                                                                                                                            TYPE: PRT
CORGANISM: Homo sapiens
US-10-108-260A-3396
RESULT 1
US-10-108-260A-3396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

```
TYPE: PRT
ORGANISM: Caenorhabditis elegans
                                                Query Match
Best Local Similarity 96,2;
Matches 587; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601 ASNDITMENV 610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-112-944-404
                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       479
                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                          \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                            360
                                                                                                                                         420
                                                                                                                                                                                                                                                  TVPQSGTFKIEFPILEDSSELQLKAYFLGSKSSMAVHSLFKSPSKTYIQLKTRDENIKVG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                      SPFELVVSGNYRLKELSYMVVSRGQLVAVGKQNSTMFSLTPENSWTPKACVIVYYIEDDG 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EIISDVLKIPVQLVFKNKIKLYWSKVKAEPSEKVSLRISVTQPDSIVGIVAVDKSVNLAN 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601 ASNDITMENVVHELELYNTGYYLGMFMNSFAVFQECGLWVLTDANLTKDYIDGVYDN 657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ASNDIIWENVVHELELYNTGYYLGMFWNSFAVFQECGLMVLTDANLTKDYIDGVYDN 657
                                                                                                                                                                                                                   KPSLNFTATVKVTRADGNQLTLEERRNNVVITVQRNYTEYWSGSNSGNQKMEAVQKINY
MNSKHLNGTITAKYTYGKPVKGDVTLTFLPLSFWGKKKNITKTFKINGSANFSFNDEEMK
                                  241 MNSKHINGTITAKYTYGKPVKGDVTLTFLPLSFWGKKKNITKTFKINGSANFSFNDEEMK
                                                                                                            NVMDSSNGLSEYLDLSSPGPVEILTTVTESVTGISRNVSTNVFFKQHDYIIEFFDYTTVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541 EIISDVLKIPVQLVFKNKIKLYWSKVKAEPSEKVSLRISVTQPDSIVGIVAVDKSVNLMN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: No. US20040048249Alel Nucleic Acids and TITLE OF INVENTION: Secreted Polypeptides FILE REFERENCE: 805A
CURRENT APPLICATION NUMBER: US/10/112,944
CURRENT FILING DATE: 2002-03-28
FRIOR FILING DATE: 2000-01-21
PRIOR PLILING DATE: 2000-01-21
PRIOR PLILING DATE: 2000-01-25
FRIOR FILING DATE: 2000-01-25
FRIOR FILING DATE: 2000-01-25
FRIOR FILING DATE: 2000-02-28
FRIOR PLILING DATE: 2000-02-28
FRIOR PLILING DATE: 2000-02-38
FRIOR APPLICATION NUMBER: US 09/496,914
FRIOR PLILING DATE: 2000-02-38
FRIOR PLILING DATE: 2000-03-37
FRIOR PLILING DATE: 2000-03-37
FRIOR PLILING DATE: 2000-03-37
FRIOR PLILING DATE: 2000-03-37
FRIOR FILING DATE: 2000-03-31
FRIOR PLILING DATE: 2000-04-18
FRIOR APPLICATION NUMBER: US 09/552,929
FRIOR PLILING DATE: 2000-04-18
FRIOR PRILING DATE: 2000-04-18
FRIOR PRILING DATE: 2000-04-18
FRIOR PRILING DATE: 2000-04-18
FRIOR PLILING DATE: 2000-05-18
FRIOR P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 404, Application US/10112944
Publication No: US20040048249A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Tang, Y. Tom
APPLICANT: Yang, Yonghong
APPLICANT: Weng, Gezhi
APPLICANT: Zhang, Jie
APPLICANT: Ken, Feiyan
APPLICANT: Wang, Jian-Rui
APPLICANT: Weng, Jian-Rui
APPLICANT: Wehrman, Tom
APPLICANT: Wehrman, Tom
APPLICANT: Weng, Dunrui
APPLICANT: Wang, Dunrui
APPLICANT: Wang, Dunrui
APPLICANT: Zhao, Qing A.
APPLICANT: Rang, Zhiwei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
     241
                                                                                                            301
                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                      g
                                                                                                            8
                                                                                                                                                       g
                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
```

```
RESULT 3
US-10-369-493-5314
i Sequence 5314, Application US/10369493
f GENERAL NFORMATION:
APPLICANT: Cao, Yongwei
APPLICANT: Hinkle, Gregory J.
APPLICANT: Hinkle, Gregory J.
APPLICANT: Goldman, Barry S.
APPLICANTION: EXPRESSION OF MICROBIAL PROPERTIES
FILE REFERENCE: 38-10(52052)
CURRENT FILING DATE: 2003-02-28
FRIOR FILING DATE: 2003-02-24
FRIOR FILING DATE: 2003-03-24
                                                                               ä
                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 MNSKHLNGTITAKYTYGKPVKGDVTLTFLPLSFWGKKKUITKTFKINGSANFSFNDEEMK 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301 NVMDSSNGLSEYLDLSSPGPVEILTTVTESVTGISRNVSTNVFFKQHDXIIEFFDXTTVL 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TVPQSGTFKIBFPILEDSSELQLKAYFLGSKSSMAVHSLFKSPSKTYIQLKTRDENIK-- 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 RLSFETKRISVFIQTDKALYKPKQEVKFRIVTLFSDFKPYKTSLNILIKDPKSNLIQQWL 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 MNSKHINGTITAKYTYGKPVKGDVTLTFLPLSFWGKKKNITKTFKINGSANFSFNDEEMK 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TVPQSGTFKIEFPILEDSSELQLKAYFLGSKSSMAVHSLFKSPSKTYIQLKTRDENIKVG 480
                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 SQGSDLGVISKTFQLSSHPILGDWSIQVQVNDQTYYQSFQVSBYVLPKFEVTLQTPLYCS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BIISDVLKIPVQLVFKNKIKLYMSKVKAEPSEKVSLRISVTQPDSIVGIVAVDKSVNLMN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  520 BIISDVLKIPVQLVFKNKIKLYWSKVKAEPSEKVSLRISVTQPDSIVGIVAVDKSVNLMN
                                                                                                                                                                                                                                     1 MOGPPLLTAAHLLCVCTAALAVAPGPRFLVTAPGIIRPGGNVTIGVELLEHCPSQVTVKA
                                                                                                                                                                                                                                                                                                                ELLKTASNLTVSVLEAEGVFEKGSFKTLTLPSLPLNSADEIYELRVTGRTQDEILFSNST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NVMDSSNGLSEYLDLSSPGPVEILTTVTESVTGISRNVSTNVFFKQHDYIIEFFDYTTVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KPSLNFTATVKVTRADGNOLTLEERRNNVVI TVTQRNYTEYWSGSNSGNQKMEAVQKINY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481 SPFELVVSGNKRLKELSYMVVSRGQLVAVGKQNSTMFSLTPENSWTPKACVIVYYIEDDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     --------VVSRGQLVAVGKQNSTMFSLTPENSWTPKACVIVYXIEDDG
                                                                                                                                                                                                                                                                                                                                                                                           61 ELLKTÁSNLTVSVLEAEGVFEKSSFKTLTLÞSLPLNSADEIYELRVTGRTQDEILFSNST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 SQQSDLGVISKTFQLSSHPILGDWSIQVQVNDQTYYQSFQVSEYVLPKFEVTLQTPLYCS
                                                                               Gaps
                                                                                                                                                          1 MOGPPLLTAAHLLCVCTAALAVAPGPRFLVTAPGIIRPGGNVTIGVELLEHCPSQVTVKA
                                                                               21;
40.3%; Score 2962.5; DB 12; Length 596; 96.2%; Pred. No. 1.2e-234; ive 0; Mismatches 2; Indels 21;
```

```
Sequence 5313, Application US/10369493

Fublication No. US20030233675A1

GENERAL INFORMATION:
APPLICANT: Gao, Yongwei

APPLICANT: Hinkle, Gregory J.
APPLICANT: Glater, Steven C.
APPLICANT: Chen, Xianfeng
TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF
TITLE OF INVENTION: PLANTS WITH IMPROVED PROPERTIES
TITLE OF INVENTION: PLANTS WITH IMPROVED PROPERTIES
TITLE OF EXPRICANTION: PLANTS WITH IMPROVED PROPERTIES
CURRENT APPLICATION NUMBER: US/10/369, 493
CURRENT PAPLICATION NUMBER: US 60/360,039
PRIOR FILING DATE: 2003-02-21

WUMBER OF SEQ ID NOS: 47374

IENGTH: 1519
                                                                                                                                                            CTSFSGPGRSGMALMEVNLLSGFMVPSEAISLSETVK----KVEYDHGKLNLYLDSVNE 1339
                                                                                                                                                                                                                                                                                                                                                                                                                  | ::: ||:| || |:: ||| :: |||: ||| CCNYTRPGKSNNALABIDALSGYRFDAEQVHTLTSIEDLORVEMEKDDTKANVYFNPLGG 1415
                                                                                                                                                                                                                                                                                                                                   AVNISANGFGFAICQLNVVYNVKASGSSRRRRSIQNQEAFDLDVAVKENKDDLNHVDLNV 1284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EAEGVFEKGSFKTLTLPSLPLNSAD -- EIYELRVTGRTQD - EILFSNSTRLSFETKRISV 131
                                    NLKEKALSFMRQGYQRELLYQREDGSFSAFGNYDPSGSTWLSAFVLRCFLEADPYIDIDQ
                                                                              NVLHRTYTWLKGHOKSNGEFWDPGRVIHSELOGG-NKSPVTLTAYIVTSLLGYRKYOPNI
                                                                                                DVQESIHFLESEFSRGISDNYTLALITYALSSVGSPKAKEALNMLTWR--AEQEGGMQFW
                                                                                                                                                                                                         VSSE--SKLSDS----WQPRSLDIEVAAYALLSHFLQFQTSEGIPIMRWLSRQRNSLGGF
                                                                                                                                                                                                                                                                     ASTQDITVALKALSEFAALMNTERINIQVIV-TGPSSPS-----PLAVVQPM-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FIQIDRAIXRPASLVRYRAIVVKSDLKPYVGNATIKIFDPSRNLISQTIGVTLDRGVXSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        87 VISNL-KPGIAQTVSLSEMPAQSLTPRQSYKLYIRGETLNAELIFENENELKYDQKALSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FIGTDKALYKPKQEVKFRIVTLFSDFKPYKTSLNILIKDPKSNLIQQWLSQQSDLGVISK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15 VCTAALAVAPGPRFLVTAPGIIRPGGNVTIGVELLEHCPSOVTVKAELLKTASNLTVSVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOFCVNIPAVRNFKVSNTQDASVSIVDYYEPRRAAVRSYNSEVKLSSCDLCSDVQGCRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1519;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 25.2%; Score 1850; DB 15; Best Local Similarity 31.6%; Pred. No. 3e-142; Matches 477; Conservative 290; Mismatches 563;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: PRT
; ORGANISM: Caenorhabditis elegans
US-10-369-493-5313
                                              101
                                                                                                                                                                                                                                                                     1179
                                                                                                                                                                                                                                                                                                   1246
                                                                                                                                                                                                                                                                                                                                1225
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1416
                                                                                                                                            1067
                                                                                                                                                                        1126
                                                                                                                                                                                                                                                                                                                                                               1306
                                                                                                                                                                                                                                                                                                                                                                                               1285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  132
                                                                                1008
                                                                                                            1071
                                                                                                                                                                                                         1125
                                                                                                                                                                                                                                                                                                                                                                                                                               1356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  146
                  à
                                        엄
                                                                           ò
                                                                                                8 8
                                                                                                                                                                   g
                                                                                                                                                                                            ð
                                                                                                                                                                                                                            D
                                                                                                                                                                                                                                                                    8 8 8
                                                                                                                                                                                                                                                                                                                                                         a
a
                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VVDGSQKARLDVIGDMAGPVLNNAHKLVQMPYGCGEQNMLNIVPNILVVKYLRATNRNES 1010
                                                                                                                                                         131
                                                                                                                                                                           FIQTOKALYKPKQEVKFRIVTLFSDFKPYKTSLNILIKDPKSNLIQQWLSQQSDLGVISK 191
                                                                                                                                                                                                                                                                                   TPQLSSHPILGDWSIQVQ----VNDQTYYQSFQVSEYVLPKFEVTLQTPLYCSMNSKHLN 247
                                                                                                                                                                                                                                                                                                                  261
                                                                                                                                                                                                                                                                                                                                                  289
                                                                                                                                                                                                                                                                                                                                                                   ANFSFNDEEMKNVMDSSNGLSEYLDLSSPGPVEILTTVTESVTGISRNVSTNVFFKQHDY 349
                                                                                                                                                                                                                                                                                                                                                                                                                                            AAVVĖSNDELKR------HKLLHEWGGGSIRIVASVTEDITEIERNATHQISTFREEV 373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | : | | : | : | : | : | : | : | XLDVEKQGDTFKPGLTYNVVVALKQMDDTPVKATLPKR----VQVSTFYNYP--YNHDTS 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      --SPSKTYIQLKTRDEN-IKVGSPFELVVSGNKRLKELSYMVVSRGQLV----AVGKQN 513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AVSPIKSFLQLLADNEGAVDVGKSLSFSLKATQPLSTITYQVMSRSNIVVSQQMTVNSEH 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STMFSLTPENSWTPKACVIVY-YIEDDGEIISDVLKIPVQLVFKNKIKLYWSKVKAEPSE 572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    573 KVSLRISVTQPDSIVGIVAVDKSVNLMNASNDITMENVVHELELYNTGYYLGMF---- 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 665 BAIDRKKRSIWRPWWGIGGSDAQSIFSNAGLVVLIDALLYREPQREFMSVMMDGAPGNA 724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EYAERFMEENEGHIVDIHDFSLGSS---PHVRKHFPETWIWLDINMGYRIYQEFEVTVPD 715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SITSWVATGFVISEDLGLGLTTTPVELQAFQPFFIFLNLPYSVIRGEEFALEITIFNYLK 775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             776 DATEVKVII--EKSDKFDILMTSSEI---NATGHOOTLLVPSEDGAT---VLFPIRPTHL 827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TVTGSERVQITAIGDVLGPSINGLASLIRMPYGCGEQNMINFAPNIYILDYLTKKKQLTD 947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      428 SLÓEEKETKIVEVDAHGTSVLTLOPPINCTSARIEAH-YDIGGKDNFTATPIYSSLYVEA 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -----YIDGVYDNA 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EAA--FAAPPMG-----GSSPPPPTVRKFFPHTWIWSDLN-STSGEVEMEIEAPD 771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GEIPITVTALSPTASDAVTQMILVKAEGIEKSYSQSILLDLTDNRLQSTLKTLSFSFPFN 887
                                                                                                                         98
                                                                                             74
                                                                                                                                                                                                                                       FIQTDRAIYRPASLVRYRAIVVKKSDLKPYVGNATIKIFDPSRNLISQTIGVTLDRGVYSG
                                                                                                                                                                                                                                                                                                       206 BLQLABETLLGDWFIEVETSNGVQDKS---SFTVDTYVLPKFEVNIKTSSFITIND-DLS
                                                                                                               GTITAKYTYGKPVKGDVTLTF-LPLSFW------GKKKN----ITKTFKIN--GS
                                                                                                                                                       75 BAEGVFEKGSFKTLTLPSLPLNSAD--EIYELRVTGRTQD-EILFSNSTRLSFETKRISV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GNQKMEAVQKINYTVPQSGTFKIEFPILEDSSELQLKAYFLGSKSSMAVHSLFK-----
                                                                                           VCTAALAVAPGPRFLVTAPGIIRPGGNVTIGVELLEHCPSQVTVKAELLKTASNLTVSVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  606 NVKFKVT-SDKNSFVGLLVVDQSVILLKTGNDITREKVEQDIENYDSNNVGGFGGPRPW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IIEFFDYTTVLKPSLNFTATVKVTRADGN--QLTLEERRNNVVITVTGRNYTEYWSGSNS
                                                               Gaps
                            Query Match 25.2%; Score 1854.5; DB 15; Length 1508; Best Local Similarity 31.8%; Pred. No. 1.3e-142; Matches 476; Conservative 292; Mismatches 562; Indels 169;
JS-10-369-493-5314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  514
                                                                                                                                                                                     87
                                                                                                                                                                                                                   132
                                                                                                                                                                                                                                                     146
                                                                                                                                                                                                                                                                                 192
                                                                                                                                                                                                                                                                                                                                                248
                                                                                                                                                                                                                                                                                                                                                                                                              290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       716
                                                                                                                                                                                                                                                                                                                                                                                                                                            322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              951
                                                                                                                 ద
                                                                                                                                                      8 B 8
                                                                                                                                                                                                                                           95
95
96
                                                                                                                                                                                                                                                                                                                                      8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               음 중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 B 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Db
```

Q

191

Gaps

ò

8 8 ሯ

```
Sequence 2445, Application US/10264237 Publication No. US20040009491A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Ver. 3.1
SEQ ID NO 2445
LENGTH: 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                 1389 LCSDVQGCRP 1398
                                                                                                                                                                                                         1476 KCG--EDCWP 1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Homo sapiens
US-10-264-237-2445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 319; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                  1329
                                  1221
                                                         1306
                                                                                  1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
       QQ
                                ò
                                                   8
                                                                              ò
                                                                                                       g
                                                                                                                           à
                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LEADPYIDIDONVLHRTYTWLKGHOKSNGEFWDPGRVIHSELQGG-NKSPVTLTAYIVTS 1055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1131 IL-----ENGMENGKAVTYLEKHLDEVSGNAYTMAVVAYALQLAKSKQAGKAFENLKKHK 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -AEQEGGMQFWVSSE--SKLSDS----WQPRSLDIEVAAYALLSHFLQFQTSEGIPIMRW 1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 966
                                                                                                                                                                                                              SLOSEKETKIVEVDAHGTSVLTLQPPINCTSARIEAH-YDIGGKDNFTATPIYSSLYVEA 486
                                                                                                                                                                                                                                                                                                              626
                                                                                                                                                                                                                                                                                                                                                                                                647
 247
                       261
                                                                        321
                                                                                                                                               407
                                                                                                                                                                       427
                                                                                                                                                                                                                                                                                                                                                                        664
                                                                                                                                                                                                                                                                                                                                                                                                                         724
                                                                                                                                                                                                                                                                                                                                                                                                                                                  704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     725 VMMMDGAPGMAEAA--FAAPPMG------GSSPPPPTVRKFFPHTWIWSDLN-STS 771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALEITIFNYLKDATEVKVII--EKSDKFDILMTSSEI---NATGHQQTLLVPSEDGAT-- 817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALLVLVFNYMEKEQDVTVTLKYDKDSGYDLLKKDGTVVRRDEVGQQNVRIVSVAGGTSK 891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 818 -VLFPIRPTHLGEIPITVTALSPTASDAVTQMILVKAEGIEKSYSQSILLDLTDNRLQST 876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LKTLSFSFPPNTVTGSERVQITAIGDVLGPSINGLASLIRMPYGCGEQNMINFAPNIYIL
                                                                                                                                                                                                                                                                                                                                                                606 NVKFKVT-SDRNSFVGLLVVDQSVLLLKTGNDITREKVEQDLENYDSNNVGGFGGPRPM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HHAKQYAFVDPNVISRAVAELNSQQMESGAFAERGEVHHKDWQGGAQDGGVALTAFVLIS
                                                                       VFVDAKYTYGKGVAGKAKVSLELPWHRWHAMVPTIIDENGVKKEBELMVERTVKLNRQGE
                                                                                                              AAVVFSNDELKR------HKLLHEWGGGSIRIVASVTEDITEIERNATHQISTFREEV
                                                                                                                                                                                              GNOKMEAVOKINYTVPQSGTFKIEFPILEDSSELQLKAYFLGSKSSMAVHSLFK-----
                                                                                                                                                                                                                                                             648 KDYIDGVYDNAEYAERFMEENEGHIVDIHDFSLGSS---PHVRKHFPETWIWLDTNMGYR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 705 IYQEFEVTVPDSITSWVATGFVISEDLGLGLTTTPVELQAFQPFFIFLNLPYSVIRGEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              772 GEVEMEIEAPDIITSWVASTFAINEENGLGVAPTTSKLRVFRPFFIQLNLPYAVRRGEKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DYLTKKKKOLTDNLKEKALSFMRQGYQRELLYQREDGSFSAFGNYDPSGSTWLSAFVLRCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1011 KYLRATNRNESQLETKAIKFIEQGIQRELTYKRADNSFSAFGDSDKAGSTWLTAFVVRSF
TFQLSSHPILGDWSIQVO - - - - VNDQTYYQSFQVSEYVLPKFEVTLQTPLYCSMNSKHLN
             ELQLABETILGDWFIEVETSNGVQDKS---SFTVDTYVLFKFEVNIKTSSFITIND-DLS
                                                                                              AN # SFNDEEMKNVMDSSNGLSEYLDLSSPGPVEILTTVTESVTGISRNVSTNVFFKQHDY
                                                                                                                                                             374 KLDVEKQGDTFKPGLTYNVVVALKQMDDTPVKATLPKR----VQVSTFYNYP--YNHDTS
                                                                                                                                                                                                                                               --SPSKTYIQLKTRDEN-IKVGSPFELVVSGNKRLKELSYMVVSRGQLV----AVGKQN
                                                                                                                                                                                                                                                                                              STWFSLTPENSWTPKACVIVY-YIEDDGEIISDVLKIPVQLVFKNKIKLXWSKVKAEPSE
                                                                                                                                                                                                                                                                                                                                                KVSLRISVTQPDSIVGIVAVDKSVNLMNASNDITMENVVHELELYNTGYYLGMF-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LLGYRKYQPNIDVQESIHFLESEFSRGISDNYTLALITYALSSVGSPKAKEALNMLTWR-
                                                GTITAKYTYGKPVKGDVTLTF-LPLSFW------GKKKN----ITKTFKIN--GS
                                                                                                                                                IIBFFDYTTVLKPSLNFTATVKVTRADGN--QLTLEERRNNVVITVTQRNYTEYWSGSNS
                                                                                                                                                                                                                                                                                                                                                                                                -----MINSFAVFQECGLWVLTDA----
                                                                                                 290
                                                                                                                         322
                                                                                                                                                  350
                                                                                                                                                                                                 408
                                                                                                                                                                                                                                                                                                  514
                                                                                                                                                                                                                                                                                                                                                                                                                           665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   877
                                                                                                                                                                                                                          428
                                                                                                                                                                                                                                                  462
                                                                                                                                                                                                                                                                                                                                                                                                  627
                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                     Д
                                                                                                                                                                                                                                                                                                                                                                    Db
                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                   д
                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                   G
                                                à
                                                                 임
                                                                                          δ
                                                                                                                     임
                                                                                                                                          상염
                                                                                                                                                                                              8 8 8
                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                           8
```

```
1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1169
                                                                                        1273
                                                                                                                                                                                                                                                                                                                               1475
                                                                                                                                                                                     KDDLNHVDLNVCTSFSGPGRSGMALMEVNLLSGFMVPSEAISLSETVK----KVEYDHG 1328
                                                                                                                                                                                                                                                                               KLNIYLDSVNETQFCVNIPAVRNFKVSNTQDASVSIVDYYEPRRQAVRSYNSEVKLSSCD 1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                         241 YLDSVNETQFCVNIPAVRNFKVSNTQDASVSIVDYYEPRRQAVRSYNSEVKLSSCDLCSD
                                                                                                                                                                                                                61 RQRNSLGGFASTQDTTVALKALSEFAALMYTERTNIQVTVTGPSSPSPVKFLIDTHNRLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1218 ----LAVVOPMAVNISANGFGFAICQLNVVYNVKASGSSRRRRSIQNQEAFDLDVAVKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 NKDDLNHVDLNVCTSFSGPGRSGMALMEVNLLSGFWVPSBAISLSETVKKVEYDHGKLNL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YLDSVNETQECVNI PAVRNEKVSNTQDASVSI VDYY EPRRQAVRSYNSEVKLSSCDLCSD
                                                                                        VQPM-----AVNISANGFGFAICQLNVVYNVKASGSSRRRRSIQNQEAFDLDVAVKEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1110 MLTWRAEQEGGMQFWVSSESKLSDSWQPRSLDIEVAAYALLSHFLQFQTSEGIPIMRWLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MLTWRAEQEGGGGGGWGFWVSSESKLSDSWQPRSLDIEVAAYALLSHFLQFQTSEGIPIMRWLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NKDDLNHVDLNVCTSFSGPGRSGMALMEVNLLSGFMVPSEAISLSETVKKVEYDHGKLNL
                                                                                                                                  LOSYQLSSLNDAVSINANGTGVVFAQLSYSY-----YRDSLNDDAPFFCSQEIKEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1628.5; DB 15; Length 336; Pred. No. 3.8e-125; 0; Mismatches 0; Indels 17;
1168 LSRQRNSLGGFASTQDTTVALKALSEFAALMNTERTNIQVTV-TGPSSPS-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Birse et al.
TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies FILE REPRESIDE: PA131F1
CURRENT APPLICATION WINBER: US/10/264,237
CURRENT FILING DATE: 2002-10-04
PRIOR APPLICATION NUMBER: PCT/US01/16450
PRIOR FILING DATE: 2001-05-18
PRIOR FILING DATE: 2001-05-19
NUMBER OF SEQ ID NOS: 2276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1170 RQRNSLGGFASTQDTTVALKALSEFAALMNTERTNIQVTVTGPSSPSP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VOGCRPCEDGASGSHHHSSVIFIFCFKLLYFMELWL 1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VQGCRPCEDGASGSHHSSVIFIFCFKLLYFMELWL 336
```

Sequence 1951, Application US/10276774

Publication No. US20040053245A1

GENERAL INFORMATION:

APPLICANT: Hyseq, Inc.

APPLICANT: Tang, Y, Tom et al

ITILE OF INVENTION: NO. US20040053245A1el Nucleic Acids and Polypeptides

FILE REFERENCE: 21272-030

CURRENT APPLICATION NUMBER: US/10/276,774

CURRENT APPLICATION NUMBER: 09/560,875

PRIOR FILING DATE: 2000-04-27

PRIOR APPLICATION NUMBER: 09/560,875

PRIOR FILING DATE: 2000-04-27

NUMBER OF SEQ ID NOS: 2700

SEQ ID NO 1951

LENGTH: 352

- See File Wrapper or PALM

TYPE: PRT
CORGANISM: Homo sapiens
US-10-085-198-30

PRIOR APPLICATION NUMBER: 60/286,096
PRIOR FILING DATE: 2001-04-21
PRIOR FILING DATE: 2001-06-20
PRIOR PILING DATE: 2001-06-20
PRIOR PILING DATE: 2001-06-20
PRIOR PRILING DATE: 2001-08-29
PRIOR FILING DATE: 2001-08-29
PRIOR FILING DATE: 2001-02-28
REMAINING PRIOR APPLICATION NUMBER: 60/272,405
PRIOR FILING DATE: 2001-02-28
NUMBER OF SEQ ID NOS: 653
SOFTWARE: Patentin Ver. 2.1
SOFTWARE: Patentin Ver. 2.1
LENGTH: 1979

Query Match
21.0%; Score 1542.5; DB 15; Length 1979
Best Local Similarity 27.4%; Pred. No. 1.1e-116;
Matches 494; Conservative 257; Mismatches 555; Indels 497;

PLLTAAHLLCVC----TAALAVAPGPRFLVTAPGIIRPGGNVTIGVELLEHCPSQVTVKA Ŋ

158 ELLKTASNLTVSVLEAEG-VFEKGSFKTLTLPSLPLNSADEIYELRVTGR----TQDEILF :|: | ::::| :::| :: | | :| | OLVAQSE----ILKVWGRGWQAEEGPLF 102 61 임 ਨੇ g

à 셤 ò d

61

1067 DVQESIHFLESEFSRGISDNYTLALITYALSSVGSPKAKEALNMLTWRAEQEGGMQFWVS 1126

18;

Indels

Query Match 21.7%; Score 1592; DB 12; Best Local Similarity 92.2%; Pred. No. 4.2e-122; Matches 319; Conservative 6; Mismatches 3;

TYPE: PRT ORGANISM: Homo sapiens US-10-276-774-1951

Length 352;

EVQESIHFLESEFSRGISDNYTLALITYALSSVGSPKAKEALMMLTWRAEQEGGMQFWVS

~

g ò dd

62

1127 SESKLSDSWQPRSLDIEVAAYALLSHFLQFQTSEGIPIMRWLSRQRNSLGGFASTQDTTV 1186

1187 ALKALSEPAALMNTERTNIOVTVTGPSSPSPL-----AVVQPM-----AVNI 1228

SANGFGFAICQLNVVYNVKASGSSRRRRSIQNQEAFDLDVAVKENKDDLNHVDLNVCTSF 1288

1229

ò

д

1289

ò

g

122

Ω

ò

182 SANGFGFAICQLNVVYNVKASGSSRRRSIQNQEAFDLDVAVKENKDDLNHVDLNVCTSF

QQWLS-QQSDLGVISKTPQLSSHPILGDWSIQVQVNDQTYYQSFQVSEYVLPKFEVTLQT

270 IEWRHLKPFCCGITNMSFPLSDQPVLGEWFIFVEMQGHAYNKSFEVQKYVLPKFELLIDP 329 PLYCSMNSKHLNGTITAKYTYGKPVKGDVT--LTFLPLSFWGKK--KNITKTFKINGSAN 291

8 8

181

ठ वि ठ

VRNFKVSNTQDASVSIVDYYEPRRQAVRSYNSEVKLSSCDLCSDVQ 1394 VRNFKVSNTQDASVSIVDYYEPRRQAVRSYNSEVKLSSCDLCSDVQ 347

1349 302

ò

g à

348 DYIIEFFDYTTV------LKPSLNFTATVKVTRADGNQLTLEERRNNVVI 391 FDICVRDM------IPADVPEHFRGRVSIWAMVT-SVDGSQQ-----390

425

392 TVTQRNYTEYWSGSNSGNQKMEAVQKIN-YT---VPQSGTFKIEFPILEDSSE---LQLK 444

519 VMALNGKPVGAQYLPSYLSLGSWY-SPSQCYLQLQPPSHPLQVGEBAYFSVKSTCPCNFT 577 445 AYFLGSK-----SSMAVHSLFKSPSKTYIQLKTRDENIKVGSPFELVVSGNKRLK-E 495 g 셤 ò

ò

RESULT 7
US-10-085-198-30

105-10-085-198-30

Sequence 30, Application US/10085198

Publication No. US20040009907A1

SEREMAL INFORMATION:

APPLICANT: Alsobrook et al.

TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same

TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same

TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same

TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same

CURRENT FILING DATE: 2402-25

FRIOR APPLICATION NUMBER: 60/271,646

PRIOR APPLICATION NUMBER: 60/276,401

PRIOR APPLICATION NUMBER: 60/271,981

PRIOR PILING DATE: 2001-08-13

PRIOR FILING DATE: 2001-08-13

PRIOR APPLICATION NUMBER: 60/271,980

PRIOR APPLICATION NUMBER: 60/271,940

PRIOR APPLICATION NUMBER: 60/271,324

PRIOR APPLICATION NUMBER: 60/277,324

PRIOR PILING DATE: 2001-08-16

PRIOR APPLICATION NUMBER: 60/277,324

514 STMFSLTPENSWTPKACVIVYYIEDDGEIISDVLKIPVQLVFKNKIKLYWSKVKAEPSEK 573 엽 ò

574 VSLRISVTQPDSIVGIVAVDKSVNLMNASNDITMENVVHELELYNTG------엄 ઠે 임

```
US-10-085-198-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Pa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                     QGYQRELLYQREDGSFSAFGNYDPSGSTWLSAFVLRCFLEADPYIDIDQNVLHRTYTWLK 1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEFSRGISDNYTLALITYALSSVGSPKAKEALNMLTWRAEQEGGMQFWVSSESKLSDSWQ 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PR------SLDIEVAAYALLSHFLQFQTSEGIPIMRWLSRQRNSLGGFAS 1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ------MNTERTNIOVTVTG--PSSPS 1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ------AFDLDVAVKENKDDLNHVDLNVCTSFSGPGRSGMALMEVNLLSGFMVPS 1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EAISLSET------VKKVEYDHGKLNLYLDSV-NETQFCVNIPAVRNFKVSNTQDASVS 1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1739 VYDYYEPAFEATRFYNVSTHSPLARELCAGPACNEVERAPARGPGWFPGESGPAVAPEEG 1798
                                                                                                                                                                                                                                                                                                  SAFFCPSERVHISTPNKYEFQYVQRPLRLTRFDVAVRAHNDARVALSSGPQDTAGMIEIV 1095
                                                                                                                                                                                                                                                                                                                                                                                                                                      1156 VAWTLPRPPEVQFIGFSTGWGSMGEFRIWRKMEVDESYSEAFTLGVPHGAIPGSERATAS 1215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1019 GHQKSNGEFWDPGRVIHSELQGGNKSPVTLTAYIVTSLL--GYRKYQPNIDVQESIHFLE 1076
                                                                                                                                                                                                                                                                                                                                                                    .096 LGGHQNTRSWISTSKMGEPVASAHTAKILSWDEFRTFWISWRGGLIQVGHGPEPSNESVI 1155
                                                                                                                                                                                                                                                                    873
715
                                                                SITSWVATGFVISEDLGLGLTTTPVELQAFQPFFIFLNLPYSVIRGEEFALEITIFNYLK 775
                                                                                                                                  827
                                                                                                                                                                                                  ---PTASDAVTQMILVKAEGIEKSYSQ 862
                                                                                                                                                                                                                                                                                                                                                                                                      ---SFPPNTVTGSERVQIT 898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1364 IVDYYEPRRQAVRSYNSEV-----KLSSCDLCSDVQ-----GCRPCEDGASGSHHHS
                                                                                     927 ICAEVYMKLSVPKGIQF------VGHPGKRHVTKKMCVAPGEAEPIWVVLSFSDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AIGDVLGPSINGLASLIRMPYGCGEQNMINFAPNIYILDYLTKKKQLTDNLKEKALSFMR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1450 VDKGTFLSFSDRVSQSVVSAEVEMTAYALLTYTLLGDVAAALBVVKMLSQQRNALGGFSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1622 AAEGSRGDWPPADDDPAADOHHQEYK-VMLEVCTRWLHAGSSNWAVLEVPLLSGFRADI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FMEENEGHIVDIHDFSLGSSPH-----VRKHFPETWIWLDTNMGYRIYQ-EFEVTVPD
                              813 AFOPHTGSLV----AVAPSRHPPRTEKRKRTFFPETWIWHCLNISDPSGEGTLSVKVPD
                                                                                                                                                                                                                                                                    ---LDLT------DNRL--------
                                                                                                                                  776 DATEV--KVIIEKSDKFDILMTSSEINATGH------QOTLLVPSEDGATVLFPIRPTHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1217 PLAVVOPMAVNISANGFGFAICQLNVVYNVK---ASGSSRRRRSIQNQE-
                                                                                                                                                                                                                                                                                                                                       --QSTLKTLSF-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1181 TODTTVALKALSEFAAL------
                                                                                                                                                                                                     828 GEIPITVTALS----
                                                                                                                                                                                                                                                                     863 SIL-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SVI 1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1799 AAİ 1801
 564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1411
                                                                                                                                                                                                                                                                                                                                       874
                                                                                                                                                                                                                                                                                                                                                                                                         883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           899
```

g

90 90 90

ò

ò

```
57;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          392 TVTQRNYTEYWSGSNSGNQKMEAVQKIN-YT---VPQSGTFKIEFPILEDSSE---LQLK 444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DYIIEFFDYTTV-------LKPSLNFTATVKVTRADGNQLTLEERRNNVVI 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  64
                                                                                   APPLICANT; Alsobrook et al.

APPLICANT; Alsobrook et al.

TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
FILE REPERMER: 21402-25

CURRENT APPLICATION NUMBER: 60/276,401

PRIOR APPLICATION NUMBER: 60/276,401

PRIOR APPLICATION NUMBER: 60/316,981

PRIOR APPLICATION NUMBER: 60/311,981

PRIOR APPLICATION NUMBER: 60/312,858

PRIOR APPLICATION NUMBER: 60/312,858

PRIOR FILING DATE: 2001-08-13

PRIOR PILING DATE: 2001-08-27

PRIOR APPLICATION NUMBER: 60/277,324

PRIOR APPLICATION NUMBER: 60/277,324

PRIOR APPLICATION NUMBER: 60/299,695

PRIOR PILING DATE: 2001-04-27

PRIOR PILING DATE: 2001-04-29

PRIOR PILING DATE: 2001-04-29

PRIOR PILING DATE: 2001-04-29

PRIOR APPLICATION NUMBER: 60/299,695

PRIOR PILING DATE: 2001-08-29

PRIOR FILING DATE: 2001-08-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      117 SNSTRLSFETKRISVFIQTDKALYKPKQEVKFRIVTLFSDFKPYKTSLNILIKDPKSNLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PLYCSMNSKHINGTITAKYTYGKPVKGD---VTLTFLPLSFWGKK--KNITKTFKINGSAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRYIODLDACETGTVRARYTFGKPVAGALMINMTVNGVGYYSHBVGRPVLRTTKILGSRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FSFNDEEMKNVMDSSNGLSEYLDLSSP----GPVEILTTVTESVTGISRNVSTNVFFKQH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            116 HNQTSVTVDGRGASVFIQTDKPVYRPQHRVLISIFTVSPNLRPVNEKLBAYILDPRGSRM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QOWLS-QOSDIGVISKTFQLSSHPILGDWS!QVQVNDQTYYQSFQVSEXVLPKFEVTLQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PDICVRDM------IPADVPEHFRGRVSIWAMVT-SVDGSQQ------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5 PLLTAAHLLCVC----TAALAVAPGPRFLVTAPGIIRPGGNVTIGVELLEHCPSQVTVKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 ELLKTASNLTVSVLEAEG-VFEKGSFKTLTLPSLPLNSADEIYELRVTGR----TQDEILF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               497; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21.0%; Score 1539.5; DB 15; Length 1885; ilarity 27.3%; Pred. No. 1.7e-116; Conservative 257; Mismatches 556; Indels 497;
Sequence 28, Application US/10085198 Publication No. US20040009907A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PatentIn Ver. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Simil
Matches 493; C
```

0y 1317 PLAVUDPANNISANGPORTALOGARVINYAN-A-ASGSSRRREGIGNGE	Db 8 PLIPLILLISARDGVRAAQPQAPGYLIAAPSVFRAGVEEVISVTIF-NSPREVTVQA Qy 61 ELLKTASNLTVSVLEAEG-VFEKGSFKTLTLPSLPLPLNSADEIY ;
445 ANPLOSK	:: :

8 & B

26 B C

\$ 8 \$

음 상 음

Db 1127 GEFRIWRKMEVDESYSEA Qy 922 GEGNMINFAPNIYILDYL	Db 1187 GBQNMIHPAPNVFVLKYI OBQ	1247	1042	1100		1481 NLTVSLASTNLDYQ	1533	Oy 1275 DDLNHVDLNVCTSFSGPC DD 1593 QEYK-VMLEVCTRWLANG	1328	GY 1383KLSSCDLCSDVG Db 1710 ARELCAGPACNEVERAPP	RESULT 10 US-09-972-211-69 ; Sequence 69, Application US/05	; PUBLICATION NO. USZOW-004-27-25-75-75-75-75-75-75-75-75-75-75-75-75-75	APPLICANT: BIBESS, CALUELLI, APPLICANT: Zerbusen, Bryan I; APPLICANT: Mezes, Peter S; APPLICANT: Restelli, Luca	APPLICANT: MALYAHKAT, UTEL APPLICANT: Grosse, William APPLICANT: Alsobrook II, Joh APPLICANT: Lepley, Denise M	; APPLICANT: Li, Li ; APPLICANT: Li, Li ; APPLICANT: Edinger, Shlomit ; APPLICANT: Gerlach, Valerie	Ellerm MacDou Gunthe Millet	; APPLICANT: Stone, David J ; APPLICANT: Smithson, Glennd; ; APPLICANT: Szekeres Jr, Edwe ; TITLE OF INVENTION: No. US200	; TITLE OF INVENTION: Methods ; FILE REFERENCE: 21402-141
103 ELRVTGRTQDEILFSNSTRLSFETKRISVFIQTDKAL 139 	140 YKPKQEVKFRIVTLFSDFKPYKTSLNILIXDPKSNLIQOMLS-QQSDLGVISKTFQLSSH 198 -	199 PILGDWSIQVQVNDÇTYYQSFQVSEYVLPKFEVTLQTPLYCSMNSKHLNGTITAKYTYGK 258		315 LSSPGPVEILTTVTESVTGISRNVSTNVFFKQHDYIIEFFDYTTV 359	360LKPSLNFTATVKVTRADGNQLTLEERRNNVVITVTQRNYTEYWSGSNSGNQKMEA 414	415 VQKIN-YTVPQSGTFKIEFPILEDSSELQLKAYFLGSKSSMAVHSĹ 459	460 FKSPSKTYIQLKTRDENIKVGSPFELVVSGNKRLK-ELSYMVVSRGQLVAVGKQ 512		EDGETISDULKIPVQLVFROKIKLYMSKVKAEPESEKVSLRISVTQPDSILOKTVATORVSV 	597 NLMNASNDITWENVYHELELYNTGYLGMFM 627 : : : : 	628 NSFAVFQECGLMVLTD-ANLTKDYIDGVYDNAEYAERFMEENEGHIVDIHDFSLGSSPH- 685	686VRKHPPETWIWLDTNMGYRIYQ-EFEVTVPDSIISWVATGFVISEDLGLGLTTT 738	739 PVELQAFQPFIFLNLDPYSVIRGEEPALEITIFNYLKDATEVKVIIEKSDKFDILMTS 796	797 SEINATGHQOTLLVPSEDGATVLFPIRPTHLGEIPITVTALS 838	839	866LDLT	STLKTLSF	SPPPNTVTGSERVQITAIGDVLGPSINGLASLIRMPYGC
٠. ۵	٠. ۵	٠ .	٠. ^		. .			. ,		٠ ،	٠. ٥	٠. ٥	× ^	. .	٠. ٥			· ~

9 % q

\$ B \$

8 6 8 6 8 6 8 6

1246 1041 1143 1306 --GYRKYQPNIDVQESIHFLESEFSRGISDNYTLALITYALSSV 1099 |::| | ::| |RRDGVTHW-----SLSNSWDVDKGTFLSFSDRVSQSVVSAEVE 1420 : | | | | :: QLLVSLQEPEAQGRPPPMPASAAEGSRGDWPPADDDDPAADQHH 1592 SAFTLGVPHGAIPGSERATASIIGDVWGPTLNHLNNLLRLPFGC 1186 SGIPIMRWLSRORNSLGGFASTODTTVALKALSEFAAL---- 1197 MNTERTNIQVIVIG--PSSPSPLAVVQPMAVNISANGFGFAICQ 1239 PELHRTNOKVLOTAAIPSLPTGLFV-----SAKGDGCCLMQ 1532 WIPAVRNFKYSNTQDASVSIVDYYEPRRQAVRSYNSEV---- 1382 RRRSIQNQE------1274 PGRSGMALMEVNILLSGFMVPSEAISLSET-----VKKVEYDH 1327 SOEGGMOFWVSSESKLSDSWOPR------SLDIE SADPYIDIDONVLHRTYTWLKGHOKSNGEFWDPGRVIHSELOGG ----GCRPCEDGASGSHHHSSVI 1413 PARGPGWFPGESGPAVAPEEGAAI 1749 BESULT 10-69
1 Sequence 69, Application US/09972211
1 Sequence 69, Application US/09972211
2 Sequence 69, Application US/09972211
3 Sequence 69, Application No. US20040048245A1
GENERAL INFORMATION:
APPLICANT: Shimkets, Richard A
APPLICANT: Taupter Transpers, Catherine E
APPLICANT: Bargess, Catherine E
APPLICANT: Bargess, Catherine E
APPLICANT: Barselli, Luca
APPLICANT: Rastelli, Luca
APPLICANT: Alsobrook II, John P
APPLICANT: Alsobrook II, John P
APPLICANT: Alsobrook II, John P
APPLICANT: Bainger, Shlomit
APPLICANT: Bainger, Shlomit
APPLICANT: Bainger, Shlomit
APPLICANT: Bainger, Shlomit
APPLICANT: Bainger, Stlomit
APPLICANT: Bainger, Stlomit
APPLICANT: Garlach, Valerie
APPLICANT: Bainger, Stlomit
APPLICANT: Garlach, Valerie
APPLICANT: MacDougall, John R
APPLICANT: Stone, David J
APPLICA

σ

495 489 549

609

631 667 720 730 777 790 836

```
SPWRQGYQRELLYQREDGSFSAFG-NY-DPSGSTWLSAFVLRCFLEADPYIDIDQNVLHR 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FCLESAWKSAKEGTHG-SHVYTKALLAYAFALAGNOERKKEILKSLEDEGVKEDNSLHWA 1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIQNQEAFDLDVAVKENKDDLNHVDLNVCTSFSGPGRSGMALMEVNLLSGF--MVPS-EA 1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1314 ISLSETVKKVEYDHGKLNLYLDSVNETQFCVNIPAVRNFKVSNTQDASVSIVDYYEPRRQ 1373
                                                                                                                                                                                                                                                                                                                                                                         FLKDMGLKVFTNTKIQKPQLCAHVQKFEVPTMAYSYSESS-----SFRSGPRRVPAVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LVFYYVIMAKGGIVQSGTYVLSVEQGNTKGHFSVSVPVESDLAPVARVLIYAILPSGEII
                                                                                                                                                                                                          S50 ADSAKYNVENCLDNKVNLSFSEGGSLPASKTHLRVTAS-PQSLCALRAVDQSVLLRKPEA
                                                                                                                                                                                                                                                                -MNASN-----DIT-----MENVVHELELYNTGYYLGMF------MNSFA
                                                                                                                                                                                                                                                                                                                                                                                                                                              1013 TYTWLKGHQKSNGEFWDPGRVIHSELQGGNKSPVTLTAYIVTSLLGYRKYQPNIDVQESI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HFLES-----EFSRGISDNYTLALITYALSSVGS-PKAKEALNMLTWRAEQEGGMQFWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORNSLGGFASTQDTTVALKALSEFAA--LMNTERTNI QVTVTGPSSPSP-----LAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         --KASGSSRRR
                           KAYFLGSKSSMAVHSLFKSPSKTYIQLKT-----RDENIKVGSPFELVVSGNKRLKE
                                                    SDVLKI PVQLVFKNKI KLYWSKVKAEPSEKVSLRISVTQPDSI VGI VAVDKSVNL----
                                                                                                                                                                                                                                                                                                      VLSASSVYALLPVKDLTGFPGLLGQQEENDGECVSLYNT-YIDGILYSPEPNINEKDMYG
                                                                                                                                                                                                                                                                                                                                              632 VFQECGLWVLTDANLTKDYIDGVYDNAEYAERFMEENEGHIVDIHDFSLGSSPH-----
                                                                                                                                                                                                                                                                                                                                                                                                                           ---VRKHFPETWIW----LDTNMGYRIYQEFEVTVPDSITSWVATGFVISED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LGLGLTTTPVELQAFQPFFIFLNLPYSVIRGEEFALEITIFNYLKDATEVKVIIEKSDKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          778 TGLGLSPT-ASLRAFOPFFVELTMPYSVIRGEAFTLKATVLNYLPDCIRISVHLEASPKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LSPT--ASDAVTQMILVKAEGIEKSYSQSILLDLTDNRLQSTLKTLSFSFPPNTVTGSER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VQITAIGDVLGPSINGLASLIRMPYGCGEQNMINFAPNIYILDYLTKKKQLTDNLKEKAL
                                                                                                        L--SYMVVSRGQLVAVG-----KQNST----MFSLTPENSWTPKACVIVYYIEDDGEII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DILMISSEINATGHQQTLLVPSEDGATVLFPIRPTHLGEIPITVTA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SSES-KLSDSW----QPRSLDIEVAAYALLSHFLQFQTSEGIP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VQPMAV----NISANGFGFAICQLNVVYNV----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1302
                                                                                                                                                                                                                                                                599
                                                                                                                                                                                                                                                                                                        609
                                                                                                                                                                                                                                                                                                                                                                                   899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1257
                             444
                                                                                                                                           490
                                                                                                                                                                                                                                                                                                                                                                                                                         989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1401
                                                            셤
                                                                                                      Ś
                                                                                                                                 g
                                                                                                                                                                                 8
                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \stackrel{\sim}{\sim}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ℅
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PLYCSMNSKHINGTITAKYTYGKPVKGDVTLTFL----PLSFWGKKKNITKTF--KING 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----FSFNDEEMK------NVMDSSNGLSEYLDLSSPGPVEILTTVT 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ESVTGISRNVSTNVFFKQHDYIIEFFDYTTVLKPSLNFTATVKVTRADGNQLTLEERRNN 388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              384 ITITASEANY-----HSNATIDENGLVQFSINTINMIGISLNIQVKHKDSTNCYDYQWLL 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -LKTASNLTVSVLEAEGVFEKGSFKTLTLPSLPLNSADEIYELRVTGRTQDEILFSNSTR 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               K--------VDGKNVPMPHKM-- 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                176 MQWQNLKLERGLTQLSFPLSSEPLLGSYSVVVHKESGGRMHHSFTVEFVLPKFEVQVSM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LSFETKRISVFIQTDKALYKPKQEVKFRIVTLFSDFKPYKTSLN----ILIKDPKSNLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        177 QQWLSQQSDLGVISKTFQLSSHPILGDWSIQV-QVNDQTYYQSFQVSEYVLPKFEVTLQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VVITVTQRNYTEYWSGSNSGNQKMEAVQ-KINYTVPQSGTFKIEFPILEDSS----ELQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PPILITAAHILCVCTAALAVAPGPRFLVTAPGIIRPGGNVTIGVELLEHCPSQVTVKAEL-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20.3%; Score 1491; DB 12; 28.8%; Pred. No. 1.1e-112;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      524;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    292; Mismatches
        APPLICATION NUMBER: US/09/972,211
CURRENT APPLICATION NUMBER: US/09/972,2
CURRENT FLING DATE: 2001-10-05
PRIOR PILING DATE: 2000-10-05
PRIOR PELLING DATE: 2000-10-05
PRIOR APPLICATION NUMBER: 60/238,323
PRIOR PELLING DATE: 2000-10-05
PRIOR FILING DATE: 2000-10-05
PRIOR FILING DATE: 2000-10-06
PRIOR PELLING DATE: 2000-10-06
PRIOR PELLING DATE: 2000-10-06
PRIOR APPLICATION NUMBER: 60/238,379
PRIOR PELLING DATE: 2000-10-06
PRIOR APPLICATION NUMBER: 60/238,379
PRIOR PELLING DATE: 2000-10-06
PRIOR FILING DATE: 2000-10-06
PRIOR PELLING DATE: 2001-00-10-06
PRIOR PELLING DATE: 2001-00-10-06
PRIOR PELLING DATE: 2001-00-06
PRIOR PELLING DATE: 2001-00-10-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 1476
TYPE: PRT
ORGANISM: Cavia porcellus
US-09-972-211-69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
Matches 451; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       389
```

g ð g

ð

d

ŏ

S S

g

ò

q

8 6

ò

8

894 947 1125

1301

셤 Š

```
609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   63 -LKTASNLTVSVLEAEGVFEKGSFKTLTLPSLPLNSADEIYELRVTGRTQDEILFSNSTR 121
                                                                                                                                                                                                                                                                                                                                                       119
                                                                                                                                                                                                                                                                                                                                                                                                                                                  289 SAN------FSFNDEEMK------NVMDSSNGLSEYLDLSSPGPVEILTTVT 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  K------LSFVKVDSYVRPGVPFFGQVRL--VDGXNVPMPHIM-- 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               599 -MNASN------DIT-----MENVVHELELYNTGYYLGMF------MNSFA 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        609 VLSASSVYALLPVKDLTGFPGLLGQQEENDGECVSLYNT-YIDGILYSPEPNINEKDMYG 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721 IAATYSEPPKETVRTYSPETWIWDLKVTDSSG---VAEVEVTVPDTITEWKAGAFCLSND 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       329 ESVTGISRNVSTNVFFKQHDYIIEFFDYTTVLKPSLNFTATVKVTRADGNQLTLEERRNN
                                                                                                                                                                                                                                                                                                                                       : | : : | | : : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | | : | : | | : | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | 
                                                                                                                                                                                                                   PLYCSMNSKHLNGTITAKYTYGKPVKGDVTLTFL----PLSFWGKKKNITKTF--KING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           444 KAYFLGSKSSMAVHSLFKSPSKTYIQLKT------RDENIKVGSPFELVVSGNKRLKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    632 VFQECGLWVLTDANLTKDYIDGVYDNAEYAERFMEENEGHIVDIHDFSLGSSPH-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ------VRKHFPETWIW---LDTNMGYRIYQEFEVTVPDSITSWVATGFVISED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             337 LSPT--ASDAVTQMILVKAEGIEKSYSQSILLDLTDNRLQSTLKTLSFSFPPNTVTGSER
                                                                                                                                                                          4 PPLLTAAHLLCVCTAALAVAPGPRFLVTAPGIIRPGGNVTIGVELLBHCPSQVTVKAEL-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       177 QOWLSQQSDLGVISKTFQLSSHPILGDWSIQV-QVNDQTYYQSFQVSEXVLPKFEVTLQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | : |: | || |: |
293 QLNSQGCFIQQVKTNDFQLRRKEYEMRLRVEAKIREEGTG----VQLTGTGFSBITATIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   389 VVITVIORNYTEYWSGSNSGNOKMEAVQ-KINYTVPOSGTFKIEFPILEDSS----ELQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           496 L--SYMVVSRGQLVAVG-----KQNST----MFSLTPENSWTPKACVIVYYIEDDGEII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               544 SDVLKIPVQLVFKNKIKLYMSKVKAEPSEKVSLRISVTQPDSIVGIVAVDKSVNL----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          731 LGLGLTTTPVELQAFQPFFIFINLPYSVIRGEEFALEITIFNYLKDATEVKVIIEKSDKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DILMISSEINATGHQQTLLVPSEDGATVLFPIRPTHLGEIPITVTA-------
                                                                                                                    Indels 300;
                                                        Length 1476;
                                                     Query Match 20.3%; Score 1491; DB 12; Best Local Similarity 28.8%; Pred. No. 1.1e-112; Matches 451; Conservative 292; Mismatches 524;
US-10-096-625-69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               236 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              349 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     791
                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                   \ddot{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요. 첫
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Ji, Welzhen
TTILE OF INVENTION: No. US20040068095Alel Human Proteins, Polynucleotides Encoding TH
TTILE OF INVENTION: No. US20040068095Alel Human Proteins, Polynucleotides Encoding TH
TTILE OF INVENTION: Wethods Of Using The Same
FILE REPERENCE: 21402-141 CIP
CURRENT APPLICATION WHMER: US/10/096,625
CURRENT FILING DATE: 2002-03-13
PRIOR APPLICATION WHMER: 60/238,325
PRIOR APPLICATION WHMER: 60/238,325
PRIOR FILING DATE: 2000-10-05
PRIOR FILING DATE: 2000-10-05
PRIOR FILING DATE: 2000-10-05
PRIOR PELIOR PRIORES: 60/238,400
PRIOR FILING DATE: 2000-10-06
PRIOR PELIOR OFFE: 2000-10-06
PRIOR PELIOR DATE: 2000-10-06
PRIOR FILING DATE: 2000-10-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    늄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: 60/238, 383
PRIOR FILING DATE: 2000-10-06
PRIOR FILING DATE: 2000-10-06
PRIOR FILING DATE: 2000-10-06
PRIOR PILING DATE: 2001-03-14
PRIOR PILING DATE: 2001-03-14
PRIOR PAPLICATION NUMBER: 60/296, 860
PRIOR PAPLICATION NUMBER: 60/296, 860
PRIOR PRIOR DATE: 2001-03-08
NUMBER OF SEQ ID NOS: 200
SOFTWARE: PALENTIN Ver. 2.1
LENGTH: 1476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR FILING DATE: 2000-10-06
PRIOR APPLICATION NUMBER: 60/238,402
PRIOR FILING DATE: 2000-10-06
PRIOR APPLICATION NUMBER: 30/238,384
PRIOR FILING DATE: 2000-10-06
PRIOR APPLICATION NUMBER: 60/238,373
PRIOR FILING DATE: 2000-10-06
PRIOR FILING DATE: 2000-10-06
PRIOR FILING DATE: 2000-10-06
                                                                                                                                                                                                                                                                                           GENERAL INVERMINOR

APPLICANT: Shinkets, Richard A
APPLICANT: Taupier Jr. Raymond J
APPLICANT: Taupier Jr. Raymond J
APPLICANT: Burgess, Catherine E
APPLICANT: Serbusen, Bryan D
APPLICANT: Rastelli, Luca
APPLICANT: Rastelli, Luca
APPLICANT: Alsobrook III, John P
APPLICANT: Alsobrook III, John P
APPLICANT: Lepley, Denise M
APPLICANT: Lepley, Denise M
APPLICANT: Lepley, Catherine M
APPLICANT: Lepley, Catherine M
APPLICANT: Syytek, Kimberly Ann
                                                                                                                                                                                                            Sequence 69, Application US/10096625
Publication No. US20040068095A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tone, David J
mithson, Glennda
zekeres Jr, Edward S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gerlach, Valerie
Bilerman, Karen
MacDougall, John R
Gunther, Brik
Millet, Isabelle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     inger, Shlomit
rlach, Valerie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Cavia porcellus
                                            1461 AIAEYHA 1467
         AVRSYNS 1380
```

qq

D ò dd à g δ 쉽 ò

ઠ

g

g ò В

ò

a

δ

ò

```
72 -SVLEAEG-VFEKGSFKTLTLPSLPLNSADE---IYELRVTGRTQDEILFSNSTRLSFET 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KRISVFIQTDKALYKPKQEVKFRIVTLFSDFKPYKTSLNIL-IKDPKSNLIQQWLSQQSD 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EDSLVFVQTDKSIYKFGQTVKFRVVSMDENFHPLNELIPLVYIQDFKGNRIAQWQSFQLE 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             186 LGVISKTFQLSSHPILGDWSIQVQVND--QTYYQSFQVSEYVLPKFEVTLQTPLYCSMNS 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---SFWGK 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :: | :: ||||||| | ||: | | | | | :: | 244 EEMNVSVCGLYIYGKPVPGHVTVSICRKYSDASDCHGEDSQAFCEKFSGQLNSHGCFYQQ 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   277 KKNITKTFKINGSANFSFNDEEMKNVMDSSNGLSEYLDLSSPGPVEILT-----TVTESV 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        304 VK--TKVFQLKR-----KEYEMK------LHTEAQIQEEGTVVELTGRQSSEITRII 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGISRNVSTNVFFKQHDYIIEFFDYTTVLKPSLNFTATVKVTRADGNQLTLEERRNNVVI 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 348 TKLS-FVKVDSHFRQG---IPFFG-------QVRLVDGKGVPIP---NKVI 384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   439 SELQLKAYFLGSKSSMAVHSLFKSPSKTYIQLKTRDENIKVGS----PFELVVSGNK--R 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12 LLCVCTAALAVAPGPRFLVTAPGIIRPGGNVTIGVELLEHCPSQVTVKAELLKTASNLTV 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15 LLVLLPTDASVSGKPQYMVIVPSLLHT-ETTEKGCVILSYLNETVTVSASLESVRGNRSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        284;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 19.6%; Score 1441; DB 12; Length 1474; Best Local Similarity 29.2%; Pred. No. 1.5e-108; Matches 453; Conservative 264; Mismatches 551; Indels 284;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  392 TVTQRNYTEYWSGSNSGNQKMEAVQ-KINYT--VPQSGTFKIEFP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  244 KHLNGIITAKYTYGKPVKGDVŢLTFLPL--------
PRIOR APPLICATION NUMBER: 60/238,325
PRIOR FILING DATE: 2000-10-05
PRIOR FILING DATE: 2000-10-05
PRIOR FILING DATE: 2000-10-05
PRIOR PILING DATE: 2000-10-06
PRIOR APPLICATION NUMBER: 60/238,400
PRIOR PILING DATE: 2000-10-06
PRIOR FILING DATE: 2000-10-06
PRIOR FILING DATE: 2000-10-06
PRIOR FILING DATE: 2000-10-06
PRIOR FILING DATE: 2000-10-06
PRIOR PILING DATE: 2000-10-06
PRIOR PRIOR APPLICATION NUMBER: 60/238,402
PRIOR PILING DATE: 2000-10-06
PRIOR PAPLICATION NUMBER: 60/238,333
PRIOR PILING DATE: 2000-10-06
PRIOR PILING DATE: 2001-06-06
PRIOR PILING DATE: 2001-06-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 1474
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-972-211-65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  표
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Edinger, Shlomit
APPLICANT: Edinger, Valerie
APPLICANT: Gerlach, Valerie
APPLICANT: Gerlach, Valerie
APPLICANT: Gerlach, Salerie
APPLICANT: MacDougall, John R
APPLICANT: Guncher, Erik
APPLICANT: Guncher, Erik
APPLICANT: Sicher, David J
APPLICANT: Smithson, Glennda
APPLICANT: Scakeres Jr, Edward S
APPLICANT: Sicheres Jr, Edward S
APPLICANT: Scakeres Jr, Scakeres Jr, S
APPLICANT: SCAKERES APPLICANT: SCAKERES APPLICANT S
APPLICANT: SCAKERES APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S
APPLICANT S

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1126 SSES-KLSDSW----QPRSLDIEVAAYALLSHFLQFQTSEGIP-----IMRWLSR 1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1187 RPQKPKVSEGFLFKSQAPSAEVEMTSYVLLAYL---TARPAPTPEDLTSATDIVNWVTK 1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QRNSLGGFASTQDTTVALKALSEFAA--LMNTERTNIQVTVTGPSSPSP-----LAV 1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1257 SIQNQEAFDLDVAVKENKDDLNHVDLNVCTSFSGPGRSGMALMEVNLLSGF--MVPS-EA 1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SFMRQGYQRELLYQREDGSFSAFG-NY-DPSGSTWLSAFVLRCFLEADPYIDIDQNVLHR 1012
                                                                                                                                                                                                                                                                                                                                                   1013 TYTWLKGHQKSNGEFWDPGRVIHSELQGGNKSPVTLTAYIVTSLLGYRKYQPNIDVQESI 1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1073 HFLES-----EFSRGISDNYTLALITYALSSVGS-PKAKEALNMLTWRAEQEGGMQFWV 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VQPMAV-----NISANGFGFAICQLNVVYNV-------KASGSSRRRR 1256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LÓQVSLPTVSDSYTÍTVTGEGNVYLÓTSLKÝNVPSEKGTFPFALEAETVPQACDGPKAHT 1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1314 ISLSETVKKVEYDHGKLALYLDSVNETQFCVNIPAVRNFKVSNTQDASVSIVDYYEPRRQ 1373
                                            895 VQITAIGDVLGPSINGLASLIRMPYGCGEQNMINFAPNIYILDYLTKKKQLTDNLKEKAL 954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 65, Application US/09972211; Publication No. US20040048245A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Shimkers, Richard A
APPLICANT: Shimkers, Richard A
APPLICANT: Taupier Jr, Raymond J
APPLICANT: Burgess, Catherine E
APPLICANT: Mezes, Peter S
APPLICANT: Mezes, Peter S
APPLICANT: Majvankar, Uriel M
APPLICANT: Alsobrook II, John P
APPLICANT: Alsobrook II, John P
APPLICANT: Espley, Denise M
APPLICANT: Spytek, Kimberly Ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SFQ-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1374 AVRSYNS 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AIAEYHA 1467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1461
                                                                                                                                                                                                 955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT
```

60;

```
1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DLN-HVDLNVCTSFSGPG---RSGMALMEVNLLSGFMVPSEAISL---SETVKKVEYDHG 1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              957 MRQGYQRELLYQREDGSFSAFG-NYDPS-GSTWLSAFVLRCFLEADPYIDIDQNVLHRTY 1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TWINGHOKSNGEFWDPGRVIHSELQGGNKSPVTLTAXIVTSLLGYRKYOPNIDVQESIHF 1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VSSESKLSDSWQPR--SLDIEVAAYALLSHFLQFQ---TSEGIP----IMRWLSRQRNSL 1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGFASTQDITVALKALSEFAALMNTERTNIQVTVTGPSSPSPLAVVQ----- 1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ----PMAVNISANGFGFAICQLNVVYNVKASGSSRRRRSIQNQEAFDLDVAVK---ENKD 1275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1305 LPELPGEYSMKVTGEGCVYLQTSLKYNI------LPEKEEFPFALGVOTLPQTCD 1353
                                                                                                                                                                                                                                                                                                                                                                       | | | | ::: | ::| EEAHHTAY------LVFSPSKSFVHLEPMSHELPCGHTQTVQAHYILNGGTLLG 489
                                                                                                                                           631
                                                                                                                                                                    668
                                                                                                                                                                                                                                               GSSPH----VRKHFPETWIWLDTNMGYRIYQEFEVTVPDSITSWVAIGFVISEDLGLGLTT 737
                                                                                                                                                                                                                                                                         782
                                                                                                                                                                                                                                                                                                  TPVELQAFQPFFIFINLPYSVIRGEEFALEITIFNYLKDATEVKVIIEKSDKFDILMTSS 797
                                                                                                                                                                                                                                                                                                                 T-ASLRAFQPFFVELTMPYSVIRGEAFTLKATVLNYLPKCIRVSVQLEASPAFLAVPVEK 841
                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                          ----SDAVTQMILVKAEGIEKSYSQSILLDLTDNRLQSTLKTLSFSFPPNTVTGSERVQ 896
                                                                                         541 EIISDVLKIPVQLVFKNKIKLYWSKVKAEPSEKVSLRISVTQPDSIVGIVAVDKSVNLM- 599
                                                       ---PHTETVRKYFPETWIMDLVVVNSAGVAEVGVTVPDTITTEWKAGAFCLSEDAGLGISS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             : ||||:| |: ||||| || : |:||||:||:||:||||: : : InngyorolnykhydgsystfgerygrngcnywlafylktfaqarayIfIdeahitqal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LES-----EFSRGISDNYTLALITYALSSVGS-PKAKEALNMLTWRAEQEGGMQFW---
                                                                                                                                           ----NAS-----FA
                                                                                                                                                                                             ---YAERFMEENEGHIVDIHDFSL
                                                                                                                                                                                                                                                                                                                                                     B----INATGHOQTLLVPSEDGATVLFPIRPTHLGEIPITVTALS-----PTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ITAIGDVLGPSINGLASLIRMPYGCGEQNMINFAPNIYILDYLTKKKQLTDNLKEKALSF
                                     LKELS--YMVVSRGQLVAVG-----KQNST----MFSLTPENSWTPKACVIVYYIEDDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KLNLYLDSVNETQFCVNIPAVRNFKVSNTQDASVSIVDYYEPRRQAVRSYNS 1380
                                                                                                                                                                                              632 VFOECGLWVLTDANLTKDYIDGVYDNAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1246
               442
                                         493
                                                                                                                    550
                                                                                                                                             600
                                                                                                                                                                                                                                                                           726
                                                                                                                                                                                                                                                                                                     738
                                                                                                                                                                                                                                                                                                                               783
                                                                                                                                                                                                                                                                                                                                                        798
                                                                                                                                                                                                                                                                                                                                                                                 842
                                                                                                                                                                                                                                                                                                                                                                                                           842
                                                                                                                                                                                                                                                                                                                                                                                                                                                             897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1329
                                                                                                                                                                                              ò
                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                        à
                                                              원 상
                                                                                                             CD.
                                                                                                                                             à
                                                                                                                                                                   유
                                                                                                                                                                                                                                                   ሯ
                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                     슝
                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
```

```
TITLE OF INVENTION: No. USCO040066055A1el Human Proteins, Polymucleotides Encoding The TITLE OF INVENTION: No. USCO040066055A1el Human Proteins, Polymucleotides Encoding The Fills Represence: 21402-141 CIP CIP CORRENT APPLICATION NUMBER: US/10/096,625
CURRENT APPLICATION NUMBER: 2020-31-31
PRIOR FILING DATE: 2020-31-32
PRIOR PRILING DATE: 2020-31-65
PRIOR PRILING DATE: 2020-31-65
PRIOR FILING DATE: 2020-31-65
PRIOR PRILING DATE: 2020-31-65
PRINGE PRILING DATE: 2020-31-65
PRINGE PRILING DATE: 2020-31-65
PRINGE PRILING DATE: 2020-31-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   284;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1474;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
19.6%; Score 1441; DB 12;
Best Local Similarity 29.2%; Pred. No. 1.5e-108;
Matches 453; Conservative 264; Mismatches 551;
Sequence 65, Application US/10096625
Publication No. US20040068095A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                             Nezes, Peter's
Ratchli, Luca
Malyankar, Unca
Grosse, William M
Alsobrook II, John P
Lepley, Denise M
Spytek, Kimberly Ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Smithson, Glennda
Szekeres Jr, Edward S
                                                                                                     APPLICANT: Shimkets, Richard A DAPLICANT: Taupler Jr. Raymond JAPPLICANT: Burgess, Catherine E APPLICANT: Zerhusen, Bryan D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ellerman, Karen
MacDougall, John R
Gunther, Erik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Valerie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Isabelle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Edinger, Shlomit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tone, David J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ji, Weizhen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gerlach,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Millet,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; TYPE: PRT
; ORGANISM: Homo
US-10-096-625-65
```

```
: ||||:| |: |||:| || || : |:|||||||: : : INTGYORQLIYYEHQARAYIFIDEAHITQAL 1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 / Match 19.6%; Score 1441; DB 12; Local Similarity 29.2%; Pred. No. 1.5e-108; Nes 453; Conservative 264; Mismatches 551;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 14
US-10-608-397-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Si
Matches 453;
                      1008
                                                                                                                                                                                          1128
                                                                                                                                                                                                                                     1125
                                                                                                                                                                                                                                                                              1187
                                                                                                                                                                                                                                                                                                                      1176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12
                                                                                                                                                  1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           127
                                                                                            d
                                                                                                                                       8 8 8
                                                                                                                                                                                                                                                                8 8 8
                                                                                                                                                                                                                                                                                                                                                                                          g &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MRQGYQRELLYQREDGSFSAFG-NYDPS-GSTWLSAFVLRCFLEADPYIDIDQNVLHRTY 1014
                                                                                   -SVLEAEG-VFEKGSFKTLTLPSLPLNSADE---IYELRVTGRTQDEILFSNSTRLSFET 126
                                                                                                              KRISVFIQTDKALYKPKQEVKFRIVTLFSDFKPYKTSLNIL-IKDPKSNLIQQWLSQQSD 185
                                                                                                                                                                                               SECTION STANDARD STANDARD SECTION SECT
                                                                                                                                                                                                                                                         LGVISKTFQLSSHPILGDWSIQVQVND--QTYYQSFQVSEYVLPKFEVTLQTPLYCSMNS 243
                                                                                                                                                                                                                                                                                GGLKOFSPPLSSEPPQGSYKVVVQKKSGGRTEH-PFTVEFVLPKFEVQVTVPKIITIE 243
                                                                                                                                                                                                                                                                                                                                             ----SFWGK 276
                                                                                                                                                                                                                                                                                                                                                                     KKNITKTFKINGSANFSFNDEEMKNVMDSSNGLSBYLDLSSPGPVEILT-----TVTESV 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGISRNVSTNVFFKQHDYIIEFFDYTTVLKPSLNFTATVKVTRADGNQLTLEERRNNVVI 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TKLS-FVKVDSHFROG---IPFFG-------QVRLVDGKGVPIP----NKVI 384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TVTQRNYTEYWSGSNSGNQKMEAVQ-KINYT--VPQSGTFKIEFP------ILEDS 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SELQLKAYFLGSKSSMAVHSLFKSPSKTYIQLKTRDENIKVGS----PFELVVSGNK--R 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LKELS--YMVVSRGQLVAVG-----KQNST----MFSLTPENSWTPKACVIVYYIEDDG 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EIISDVLKIPVQLVFKNKIKLYMSKVKAEPSEKVSLRISVTQPDSIVGIVAVDKSVNLM- 599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     --NDITMENVVHELELYNTGY-YLGMFMNS----FA 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        609 PDAELSÄSSVYNLLPEKDLIGFPGPLNDQDNEDCINRHNVYINGITYTPVSSTNEKDMYS 668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VFQECGLWVLTDANLTKDYIDGVYDNAE-----YAERFWEENEGHIVDIHDFSL 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GSSPH---VRKHFPETWIWLDTNMGYRIYQEFEVTVPDSITTSWVATGFVISEDLGLGLTT 737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TPVELQAFQPFFIFLNLPYSVIRGEEFALEITIFNYLKDATEVKVIIEKSDKFDILMTSS 797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           E----INATGHOOTLLVPSEDGATVLFPIRPTHLGEIPITVTALS------PTA 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EQAPHCICANGRO-----TVSWAVTPKSLGNVNFTVSAEALESQELCGTEVPSV 890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ----SDAVTOMILVKAEGIEKSYSOSILLDLTDNRLOSTLKTLSFSFPPNTVTGSERVQ 896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    391 PEHGRKDTVIKPLLVEPEGLEKETTFNSLLCPSGGEVS---EELSLKLPPNVVEESARAS 947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              897 ITAIGDVLGPSINGLASLIRMPYGCGEQNMINFAPNIYILDYLTKKKQLTDNLKEKALSF 956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VK--TKVFQLKR-----KEYEMK-----LHTBAQIQEEGTVVELTGRQSSEITRII 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         669 FLEDMGLKAFTNSKIRKPKMCPQLQQYEMHGPEGLRVGFYESDVMGRGHARLVHVEE--- 725
71
                           LLVLLPTDASVSGKPQXMVLVPSLLHT-ETTEKGCVLLSYLNETVTVSASLESVRGNRSL
  LLCVCTAALAVAPGPRFLVTAPGIIRPGGNVTIGVELLEHCPSQVTVKAELLKTASNLTV
                                                                                                                                                                                                                                                                                                                                          KHINGTITAKYTYGKPVKGDVTLTFLPL----------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ----NAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               332
                                          15
                                                                                                                           74
                                                                                                                                                                      127
                                                                                                                                                                                                               125
                                                                                                                                                                                                                                                                                                  185
                                                                                                                                                                                                                                                                                                                                                                                                                              277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               957
                                                                                 72
                                                                                                                                                                                                                                                         186
                                                                                                                                                                                                                                                                                                                                          244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             842
                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               요 상 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                    d
                                                                        ò
                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                       8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ठ है ठ
à
```

Sequence 15, Application US/10608397

Sequence 15, Application US/20040067512A1

GENERAL INFORMATION:

APPLICANT: Kenneth David Becker

APPLICANT: And and
APPLICANT: And and
APPLICANT: And and
APPLICANT: Alabel Bertram

FILE REFERENCE: 37481-3323B

FILE REFERENCE: 37481-3323B

FRIOR FILING DATE: 2003-06-26

PRIOR APPLICATION NUMBER: 60/337,434

PRIOR FILING DATE: 2001-11-09

NUMBER OF SEQ ID NOS: 15

SOFTWARR: FastSEQ for Windows Version 4.0

SEQ ID NO 15

LENGTH: 1474

TYPE: PRT

CREATING BAPEL

CREA 1222 1246 GGFSSTQDTVVALHALSKYGAATFT-RTGKAAQVTIQSSGTFSSKFQVDNNNRLLLLQQVS 1304 | : | | : | | : | | 353 DLN-HVDLNVCTSFSGPG----RSGMALMEVNLLSGFMVPSEAISL---SETVKKVEYDHG 1328 60; KRISVFIQTDKALYKPKQEVKFRIVTLFSDFKPYKTSLNIL-IKDPKSNLIQQWLSQQSD 185 15 LLVLLPTDASVSGKPQYMVLVPSLLHT-ETTEKGCVLLSYLNETVTVSASLESVRGNRSL 73 TWLKGHOKSNGEFWDPGRVIHSELQGGNKSPVTLTAYIVTSLLGYRKYOPNIDVQESIHF LES-----EFSRGISDNYTLALITYALSSVGS-PKAKEALNMLTWRAEQEGGMQFW---VSSESKLSDSWOPR--SLDIEVAAYALLSHFLOFQ---TSEGIP----IMRWLSRORNSL GGFASTODITVALKALSEFAALMNTERINIOVIVIGESSPSPLAVVQ----------PMAVNISANGFGFAICQLNVVYNVKASGSSRRRRSIQNQEAFDLDVAVK---ENKD LLCVCTAALAVAPGPRFLVTAPGIIRPGGNVTIGVELLEHCPSQVTVKAELLKTASNLTV 72 -SVLEAEG-VFEKGSFKTLTLPSLPLNSADE---IYELRVTGRTQDEILFSNSTRLSFET Gaps 1329 KLNLYLDSVNETQFCVNIPAVRNFKVSNTQDASVSIVDYYEPRAQAVRSYNS 1380 284; Length 1474; Indels

EDE COLUMN	EDSLVFVQTDKSIYKPGQTVKFRVVSMDENFHPLNELIPLVYIQDPKGNRIAQWQSFQLE 184 LGVISKTFQLSSHPILGDWSIQVQVNDQTYYQSFQVSEYVLPKFEVTLQTPLYCSRNS 243 :
IITKTFKI :: -TKVFQL	
SRNVSTN : S-FVKVDS	TGISRNVSTNVFFKQHDYIIEFFDYTTVLKPSLNFTATVKVTRADGNOLTLEERRNNVVI 391 :
CORNYTEYN : : RGNEANY	TVYQRNYTEXWSGSNSGNQKMEAVQ-KINYTVPQSGTFKIEFPILEDS 438 : : : : : : : :
SELQLKAYFLG	SELQLKAYFLGSKSSMAVHSLFKSPSKTYIQLKTRDENIKVGSPFELVVSGNKR 492
SLSYMVV ::: SFYYLIP	LKELSYMVVSRGQLVAVGKQNSTMFSLTPENSWTPKACVIVYYIEDDG 540 : ::::
SDVLKIPV GDSAKYDV	ELISDVLKIPVQLVFROKIKLYWSKVKAEPSEKVSLRISVTQPDSIVGIVAVDKSVNLM- 599 ::
NAS : XELSASSVYNL	NASFA 631
DECGLWVLT	VPQECGLWVLTDANLTKDYIDGVYDNAEYAERFMEENEGHIVDIHDFSL 680 ::
3PHVRK 	GSSPHVRKHFPETWITMLDTNMGYRLYQEFEVTVPDSITSWVATGFVISEDLGLGLTF 737 PHTETVRKYFPETWIMDLVVVNSAGVAEVGVTVPDTITEWRAGAFCLSEDAGLGISS 782
TELQAFOPF : SLRAFOPF	TPVELQAFQPFFIFLNLFYSVIRGEEFALBITIFNYLKDATEVKVIIEKSDKFDILMTSS 797
PHCICANG	EINATGHQTLLVPSEDGATVLFPIRPTHLGEIPITVTALSPTA 841
SDAVTC	SDAVTOMILVKAEGIEKSYSQSILLDLIDNRLQSTLKTLSFSFPPNTVTGSERVQ 896
AIGDVLGPS GDILGSA	ITAIGDVLGPSINGLASLIRMPYGCGEQNMINFAPNIXILDYLTKKKQLTDNIKEKALSF 956
GYQRELLY : GYQRQLNY	MRÒGYQRELLYQREDGSFSAFG-NYDPS-GSTWLSAFYLRCFLEADPYIDIDQNYLHRTY 1014
KGHQKSNG 	TWLKGHOKSNGEFWDPGRVIHSELOGGNKSPVTLTAXIVTSLLGYRKYQPNIDVQESIHF 1074
3AWKTAQEG	LESEFSRGISDNYTLALITYALSSVGS-PKAKEALNMLTWRAEQEGGMQFW 1124

```
APPLICANT: Kovacs, Dorgan APPLICANT: Remarks, Aleister J.
APPLICANT: Saunders, Aleister J.
APPLICANT: Saunders, Aleister J.
TITLE OF INVENTION: Albha-2-Macroglobulin Therapies and Drug Screening Methods for TITLE OF INVENTION: Albha-2-Macroglobulin Therapies and Drug Screening Methods for FILE REFERENCE: 0609.4460005
CURRENT APPLICATION NUMBER: US/10/052,817
CURRENT PELLING DATE: 1002-01-23
PRIOR FILING DATE: 1999-02-02
PRIOR FILING DATE: 1999-02-03
PRIOR FILING DATE: 1998-09-04
PRIOR FILING DATE: 1998-09-04
PRIOR FILING DATE: 1998-07-17
NUMBER: 05 SEQ ID NOS: 27
SUFFARE: Patentin Ver. 2.0
SEQ ID NO 2.2
1175
                      ---- PMAVNISANGFGFAICQLNVVYNVKASGSSRRRRSIONOBAFDLDVAVK----ENKD 1275
                                                                                                                                                                                                                                                               1354 EPKAHTSFQISLSVGYTGSRSASNMAIVDVKMVSGFIPLKPTVKMLERSNHVSRTEVSSN 1413
                                                                                                   1276 DLN-HVDLNVCTSFSGPG---RSGMALMEVNLLSGFMVPSEAISL---SETVKKVEYDHG 1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           244 KHINGTITAKYTYGKPVKGDVTLTFLPL--------SFWGK 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   127 KRISVFIQTDKALYKPKQEVKFRIVTLFSDFKPYKTSLNIL-IKDPKSNLIQQWLSQQSD 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : :| :: ||||||| | || :: EEMNVSVCGLYTYGKPVPGHYTVSICRKYSDASDCHGEDSQAFCEKFSGQLNSHGCFYQQ 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72 -SVLEAEG-VFEKGSFKTLTLPSLPLNSADE---IYELRVTGRTQDEILFSNSTRLSFET 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LGVISKTFQLSSHPILGDWSIQVQVND--QTYYQSFQVSEYVLPKFEVTLQTPLYCSMNS 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12 LLCVCTAALAVAPGPRFLYTAPGIIRPGGNVTIGVELLEHCPSQVTVKAELLKTASNLTV 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73
1125 VSSESKLSDSWQPR--SLDIEVAAYALLSHFLQFQ---TSEGIP----IMRWLSRQRNSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15 LLVLLPTDASVSGKPQYMVLVPSLLHT-ETTEKGCVLLSYLNETVTVSASLESVRGNRSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels 284; Gaps
                                                                                                                                                                                                                                                                                                                   1329 KLMIYLDSVNETQFCVNIPAVRNFKVSNTQDASVSIVDYYEPRRQAVRSYNS 1380
                                                                                                                                                                                                                                                                                                                                        Length 1474;
                                                                               GGFASTODITVALKALSEFAALMNTERTNIQVTVTGPSSPSPLAVVQ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 29.1%; Pred. No. 1.5e-108;
Matches 451; Conservative 266; Mismatches 551;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2, Application US/10052817
Publication No. US20020114792A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Tanzi, Rudolph E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; ORGANISM: Homo sapiens
US-10-052-817-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1474
                                                                                   1176
                                                                                                                                                                1223
                                                                                 à
                                                                                                                    g
                                                                                                                                                   장 음·장
                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

IXT FKINGSANFSFNDEEMKAVMDSSNGLSEYLDLSSPGPVEILTTVTESV	TKLS-FVKUDSHFRQGIPFEG	LKELSYMVVSRGQLVAVGKQNSTMFSLTPENSWTPKACVIVYXIEDDG 540	VPQECGLWVLTDANLTKDXIDGVYDNAEYAERFMEENEGHIVDIHDFSL 680 ::	TPVELQAFOPFIFINLPYSVIRGEBFALEITIFNYLKDATEVKVIIEKSDKPDILMTSS 797	SDAVIQMILVKABGIEKSYSQSILLDLTDNRLQSTLKTLSFSFPNTVTGSERVQ 896	TWLKGHOKBNGEFWDPGRVIHSELQGGNKSPVTLTAXIVTSLLGYRKYOPNIDVQSSIHF 1074
	348 TKLS-FVK 392 TVTQRNYT 385 FI-RGNEA 439 SELQLKAY 442 EEAHHTAY	493 LKELS 490 LKKLSFY 541 EIISDVI :: 550 DVIDSA 601 ASNDITY 609 PDAELSP	632 VFQECGI :: 669 FLEDMGI 681 GSSPH	738 TPVELOA 	842SD 891 PEHGRKD 897 ITALGDV :: : 948 VSVJGDI 957 MROGYQRI :	1015 TWLKGHQ 1068 IWLSQRC 1075 LES 1128 LESAWKT 1125 VSSESKI 1125 VSSESKI 1137 QKPKAPV 1176 GGFASTQ 1176 GGFASTQ
oy oy	8 8 8 8 8	ò a ò a ò a	oc oc	64 65 65 64 65 65	रुं ते रुं ते रुं त	6 6 6 6 6 6 6 6 6

Search completed: August 10, 2004, 19:39:06 Job time : 65 secs

This Page Blank (Uspto)

```
August 10, 2004, 19:25:04; Search time 23 Seconds (without alignments) 3205.299 Million cell updates/sec
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                            OM protein - protein search, using sw model
                                                                                                                                                               Run on:
```

US-10-020-095-4 7348

1 MCGPPLLTAAHLLCVCTAAL.......HSSVIFIFCFKLLYFMELWL 1428 Title: Perfect score: Sequence:

389414 segs, 51625971 residues Gapop 10.0 , Gapext 0.5 **BLOSUM62** Scoring table: Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Total number of hits satisfying chosen parameters:

389414

Post-processing: Minimum Match 0% Maximum Match 100%

Listing first 45 summaries

/cgn2_6/ptodata/2/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/2/iaa/BCOMB.pep:*
/cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:/cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep: Issued Patents AA:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

•		ojo.					•
တိ	core	Query	Length	DB	QI	Description	•
	1441		1474	4	US-09-241-606-2	Sequence 2, Ap	ila
6	73.5	13.2	1651	Н	-08-447	6	Ď1i
	931		1663	7	9	H	Appli
	931		1663	ო	-09-132	equence 1,	ĎĮ;
	931	12.7	9	m	-142	equence 22,	(aa
	921		7	4	-487-	equence 2,	12
	894	12.2	1642	7	US-08-662-227-2	equence 2,	Ď
	894		1642	4	7	equence 2,	P.
	894	12.2	64	4	-09-925-442-	equence 2,	Appl:
	882	12.0	1642	Н	-447-411-4	equence 45,	Idd
	880	12.0	1648	~	-662-227-3	35,	ppl
	880	12.0	1648	4	-09-017-	equence 35,	[dd
	880	•	1648	4	-09-925-442-3	35,	[dd
٢	68.5		1333	-1	-08-447-411-	76,	[dd
-	58.5	10.3	1333	0	-08-662-		ppl
ŗ	58.5		1333	4	-09-017	34,	pp]
1	58.5	•	33	4	5-442-	34,	pp]
	329		645	H	-07-779	'n	pli
	271		1667	4	-09-48	116	A.
	234	3.2	113	4,	US-09-311-352B-2	Sequence 2, Appl	_
N	15.5		ß	4	09-24	Sequence 4, Ap	pli
N	11.5	2.9	Ч	4	US-09-543-681A-7609	Sequence 7609,	Ap
	185		183	4	-09-311-352B-	Sequence 4, Appli	pli
	185	2.5	2385	4	US-09-543-681A-6304	Sequence 6304,	⋖
	180	2.4	1341	4	-252-991A-26	2678	4
Н	77.5	2.4	2777	4	12	6124	Ap
Ч	74.5	2.4		Н	US-08-480-604A-10	10,	Appl

Sequence 10, Appl	Sequence 10, Appl	Sequence 10, Appl	Sequence 10, Appl			Sequence 5538, Ap	'n	'n	'n	Sequence 2, Appli	315	Sequence 257, App	Sequence 69, Appl	2, 4	ς,	Sequence 2, Appli	2,
US-08-405-496A-10	US-08-915-136-10	US-08-957-310-10	US-10-011-366-10	US-09-084-517-10	US-09-328-352-5486	US-09-543-681A-5538	US-08-793-273C-2	PCT-US95-11684-2	US-08-118-674-1	US-09-796-575-2	US-09-134-001C-3159	US-09-453-702B-257	US-09-206-942-69	US-08-038-682-2	US-08-302-832-2	US-08-530-198-2	US-08-469-880-2
(7)	m	4	4	4	4	4	4	ហ		4	4	4	4	н	н	~	7
2366	2366	2366	2366	2366	3290	2037	2199	2199	403	2200	10182	3169	1095	1536	1536	1536	1536
2.4	2.4	2.4	2.4	2.4	2,3	2.5	2.2	2.5	2.5	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
174.5	174.5	174.5	174.5	174.5	171	165	161	161	160.5	157.5	156	153.5	152.5	152.5	152.5	152.5	152.5
28	53	30	31	32	33	34	35	36	37	38	9	40	41	4.2	43	44	45

z
띩
Ö
ы
æ

ľS

```
US-05-241-606-2

US-05-241-606-2

Sequence 2, Application US/09241606

Sequence 2, Application US/09241606

SEQUENCE 3, Application US/09241606

SEQUENCE 4, APPLICANT: Tanzi, Rudolph E. APPLICANT: Tanzi, Rudolph E. APPLICANT: Saunders, Dora APPLICANT: Saunders, Alaister J. TITLE OF INVENTION: Allaheier's Disease

TITLE OF INVENTION: Alabeimer's Disease

TITLE OF INVENTION: Alabeimer's Disease

TITLE OF INVENTION: Alabeimer's Disease

CURRENT APPLICATION NUMBER: US/09/241,606

CURRENT FILING DATE: 1999-02-02

NUMBER OF SEQ ID NOS: 27

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 2.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KRISVFIQTDKALYKPKQEVKFRIVTLFSDFKPYKTSLNIL-IKDPKSNLIQQWLSQQSD 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72 -SVLEAEG-VFEKGSFKTLTLPSLPLNSADE---IYELRVTGRTQDEILFSNSTRLSFET 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 186 LGVISKTFQLSSHPILGDWSIQVQVND--QTYYQSFQVSEYVLPKFEVTLQTPLYCSMNS 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               185 GGLKQFSFPLSSEPPGGSYKVVVQKKSGGRTEH-PFTVEEFVLPKFEVQVTVPKIIILE 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ----SFWGK 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  :: | :: | | | | | | | | | | :: | 244 EEMNVSVCGLYIYGKPVPGHVIVSICRKYSDASDCHGEDSQAFCEKFSGQLNSHGCFYQQ 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      304 VK--TKVFQLKR-----KEYEMK------LHTEAQIQEBGTVVELTGRQSSEITRTI 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      277 KKNITKTFKINGSANFSFNDEEMKNVMDSSNGLSEYLDLSSPGPVEILT-----TVTESV 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12 LLCVCTAALAVAPGPRFLVTAPGIIRPGGNVTIGVELLEHCPSQVTVKAELLKTASNLTV 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15 LLVLLPTDASVSGRPQYMVLVPSLLHT-ETTEKGCVLLSYLNETVTVSASLESVRGNRSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
19.6%; Score 1441; DB 4; Length 1474;
Best Local Similarity 29.1%; Pred. No. 7.7e-111;
Matches 451; Conservative 266; Mismatches 551; Indels 284; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     244 KHLNGTITAKYTYGKPVKGDVTLTFLPL------
                                                                                                                                                                                                                                                                                                                                                                                                                   ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-241-606-2
                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
```

332 TGISRNVSTNVFFKQHDYIIEFFDYTTVLKPSLNFTATVKVTRADGNQLTLEERRNNVVI 391

ò

59;

```
1354 EPKAHTSFQISLSVSYTGSRSASNMAIVDVKMVSGFIPLKPTVKMLERSNHVSRTEVSSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (703) 413-220
TELEX: 24885 OPAT UR
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : 1651 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-447-411-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   165
                         ò
                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LES-----EPSRGISDNYTLALITYALSSVGS-PKAKEALNMLTWRAEQEGGMOFW--- 1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VSSESKLSDSWOPR--SLDIEVAAYALLSHFLOFQ---TSEGIP----IMRWLSRQRNSL 1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1176 GGFASTODTTVALKALSEFAALMNTERTNIOVTVTGPSSPSPLAVVQ----- 1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1305 LPELPGEYSMKVTGEGCVYLQTSLKYNI------LPEKEEFPFALGVQTLPQTCD 1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DLN-HVDLAVCTSFSGPG---RSGMALMEVNLLSGFMVPSEAISL---SETVKKVFYDHG 1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TWLKGHOKSNGEFWDPGRVIHSELQGGNKSPVTLTAYIVTSLLGYRKYQPNIDVQESIHF 1074
                                                                                                                                                                                                                                                  699
                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           891 PEHGRKDTVIKPLLVEPEGLEKETTFNSLLCPSGGEVS---EELSLKLPPNVVEESARAS 947
                                        438
                                                             441
                                                                                    492
                                                                                                           489
                                                                                                                                                        549
                                                                                                                                                                              009
                                                                                                                                                                                                                           631
                                                                                                                                                                                                                                                                                       737
                                                                                                                                                                                                                                                                                                                                            782
                                                                                                                                                                                                                                                                                                                                                                 TPVELQAFQPFFIFINLPYSVIRGEEFALEITIFNYLKDATEVKVIIEKSDKFDILMTSS 797
                                                                                                                                                                                                                                                                                                                                                                               EQAPHCICANGRO------TVSWAVTPKSLGNVNFTVSAEALESQELCGTEVPSV 890
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ----SDAVTQMILVKAEGIEKSYSQSILLDLTDNRLQSTLKTLSFSFPPNTVTGSERVQ 896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ITAIGDVLGPSINGLASLIRMPYGCGEQNMINFAPNIYILDYLTKKKQLTDNLKEKALSF 956
                                                                                                                                                                                                                                                                                                                      GSSPH----VRKHFPETWIWLDTNMGYRIYQEFBVTVPDSITSWVATGFVISEDLGLGLTT
                                                                                                                                                                                             442 BEAHHTAY------LVFSPSKSFVHLEPMSHELPCGHTQTVQAHYILNGGTLLG
                                                                                                                                              BIISDVLKIPVQLVFKNKIKLYWSKVKAEPSEKVSLRISVTQPDSIVGIVAVDKSVNLMN
                                                                                                                                                                                                                           601 ASNDITMENVVHEL-ELYNTGY------YLGMFMNS-----FA
                                                                                                                                                                                                                                             PDAELSASSVYNLIPEKDLTGFPGPLNDQDDBDCINRHNVYINGITYTPVSSTNEKDMYS
                                                                                                                                                                                                                                                                                                                                   |---PHTETVRKYFPETWIWDLVVVNSAGVAEVGVTVPDTITEWKAGAFCLSEDAGLGISS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ----PMAVNISANGFGFAICQLNVVYNVKASGSSRRRRSIQNQEAFDLDVAVK---ENKD
                                                      385 FI-RGNEANYY--SNATTDEHGLVQFSINTTNVMGTSLTVRVNYKDRSPCYGYQWVSEEH
                                                                                    SELOLKAYFLGSKSSMAVHSLFKSPSKTYIQLKTRDENIKVGS----PFELVVSGNK--R
                                                                                                                                                                                                                                                                        632 VPQECGLWVLTDANLTKDYIDGVYDNAE-----YAERFMEENEGHIVDIHDFSL
                                                                                                                                                                                                                                                                                                                                                                                                                 E----INATGHOOTLLVPSEDGATVLFPIRPTHLGEIPITVTALS------PTA
                                                                                                                                 LKELS--YMVVSRGQLVAVG-----KQNST----MFSLTPENSWTPKACVIVYYIEDDG
                                        392 TVTORNYTEYWSGSNSGNOKMEAVO-KINYT--VPOSGTFKIEFP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1015
                  348
                                                                                      139
                                                                                                                                   493
                                                                                                                                                        490
                                                                                                                                                                               541
                                                                                                                                                                                                      550
                                                                                                                                                                                                                                                  609
                                                                                                                                                                                                                                                                                                 699
                                                                                                                                                                                                                                                                                                                                             726
                                                                                                                                                                                                                                                                                                                                                                    738
                                                                                                                                                                                                                                                                                                                                                                                           783
                                                                                                                                                                                                                                                                                                                                                                                                                 798
                                                                                                                                                                                                                                                                                                                                                                                                                                       842
                                                                                                                                                                                                                                                                                                                                                                                                                                                              842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1223
                                                                                                                                                                                                                                                                                                                       681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                         à
                                                            임
                                                                                    8
                                                                                                        a
                                                                                                                             ò
                                                                                                                                                       원
                                                                                                                                                                              ઠે
                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
```

```
61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |-----FQTPEGIV-----VSSKPVNPSGSIRPYNLPELVSFGTWXAVAKYEHSPEESYT 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MOGPPLLTAAHLLCVCTAALAVAPGPRFLVTAPGIIRPGGNVTIGVELL-EHCPSQVTVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    115 LEKVVLLSYQSG--FVFIQTDKGIYTPGSPVRYRVFSV--DHNMHRMDKTVIVE----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ------EGDWSIQVQVN----DQTYY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60 A----ELLKTASNLTVSVLEAEGVFEKGSFKTLTLPSLPLNSADEIYBLRVTGRTQDEIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | | : : | | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : : | : : : | : : : : | : : : | : : : | : : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : | : : : | : : | : : | : : | : : | : : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : : | : : : | : : : | : : : | : : | : : : | : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    116 FSNSTRLSFETKRISVFIQTDKALYKPKQEVKFRIVTLFSDFKPYKTSLNILIKDPKSNL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MEGMALYLVAALLIGFPGS---SHGALYTLITPAVLRTDTEEQILVEAHGDSTPKSLDIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels 343;
                                                                                         1329 KINLYLDSVNETQFCVNI PAVRNFKVSNTQDASVSIVDYYEPRRQAVRSYNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: FRITZINGER, DAVID C.
APPLICANT: BREDHOKST, REINHARD
APPLICANT: BREDHOKST, REINHARD
APPLICANT: UGGEL, CARL-WILHELM
TITLE OF INVENTION: DNA ENCODING COBRA C3, CVF1, AND CVF2
NUMBER OF SEQUENCES: 81
CORRESPONDENCE ADDRESS:
ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,
ADDRESSEE: P.C.
STRET: 1755 S. Jefferson Davis Highway, Suite 400
CITY: Arlington
STATE: VIrgina
COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 22202
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
RAPPLICATION NUMBER: US/08/447,411
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 13.2%; Score 973.5; DB 1; Best Local Similarity 23.5%; Pred. No. 1.2e-71; Matches 391; Conservative 278; Mismatches 649;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          176 IQQWLSQQSDLGVISKTFQLSSHPI-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 1126-101-0
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 413-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/043,747
FILING DATE: 07-APR-1993
ATTORNEY/AGENT INFORMATION:
NAME: Oblon, No. 5773243man F.
REGISTRATION NUMBER: 24,618
                                                                                                                                                                                                                                                                                                                                                                       US-08-447-411-2
; Sequence 2. Application US/084474111
; Patent No. 5773243
; GENERAL INFORMATION:
```

ო

```
ð
                                                                                                                                                     셤
                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                8
                                                                          엄
                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMLGGTKGAEPEASLTAFIVTALLESRSV-----CKEQINILDSSINKATDYLLKKYEKL 1172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1084 SDNYTLALITYALSSVGSPKAKEALNMLTWRAEQEGGMQFWVSSESKLSDSWQPRSLDIF 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1144 VAAYALLSHFLQFQTSEGIPIMRWLSRQRNSLGGFASTQDTTVALKALSEFAALMVTER- 1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        979 NYDPSGSTWLSAFVLRCFLEADPYI-DIDQNVLHRTYTWL-KGHQKSNGEFWDPGRVIHS 1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ELOGGNKS---PVTLTAYIVTSLLGYRKYOPNIDVQESIHFLESEFSRG-----I 1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1173 ORPYTTALTAYALA-----AADRLNDDRVLMAASTGRNRW------EEYNARTHNIE 1218
                                                                                                                                                                                                                                  379 VPVVSEAIHSE------GTTLSDGTAKLILNTPLNIQS-----LPITVRTNHGDLPRE 425
                                                                                                                                                                                                                                                                                 447 FLGSKSSMAVHSLFKSPSKTYIQLKTRDENIKVGS--PFELVVSGN----KRLKELSYMV 500
                                                                                                                                                                                                                                                                                                                                                                           647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          717 CCHYIKGIRDENQRESELFLARSDFEDELFGDDNIISRSDFPESWLWLTEELTGEPNNQG 776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             703 YRIYQEFEVTVP----DSITSWVATGFVISEDLGLGLTTT------PVELQAFQPFFIF 751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 777 IS-----SKTVPFYLRDSITTW-----ELLAVGLSPTKGICVAEPYEITVMKDFFID 823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     752 LNLPYSVIRGEEFALEITIFNYLKDATEVKVIIEKSDKFDILMTSSEINATGHQQTLLVP 811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          812 SEDGATVLFPIRPTHLG--EIPITVTALSPTASDAVTQMILVXAEGIEKSYSQSILLDLT 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SERAVPEVIVPLEQGLHDVEVIASVRGELASDGVRKKLKVVPEGERKNIVTIIELDPS 939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             870 DNRLOST--LKTLSFSFPPNTVTGSERVQITAIGD----VLGPSING--LASLIRMPYGC 921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  940 VKGYGGTQELTVIANKLDDKVPDTEVETRISVLGDPVAQIIENSIDGSKLNHLIITPSGC 999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GEQNMINFAPNI --- YILDYLTKKKQLTDNLKEKALSFMRQGYQRELLYQREDGSFSAFG 978
217 QSFQVSEYVLPKFEVTLQTP---LYCSMNSKHLNGTITAKYTYGKPVKGDVTLTFLPLSF 273
                    214 AYFDVREYVLPSFEVRLQPSDKFLYIDGN-KNFHVSITARYLYGKKVEG-VAFVVFGVKI 271
                                                                     WGKKKNI----TKTFKINGSANFSFNDEEMKNVMDSSNGLSEYLDLSSPGPVEILTTVTE 329
                                                                                                   272 DDAKKSIPDSLTRIPIIDGDGEATLKRDTLRSRFQDLNQLVGHTLYVS-----VTVITE 325
                                                                                                                                        SVTGISRNVSTNVFFKQHDYIIEFFDYTTVLKPSLNFTATVKVTRADGNQLTLEERRNNV 389
                                                                                                                                                                          326 SGSDMVVTEQGGIHIVTSPYQIYFTKTPKYFKÞGMPYELTVYVTNPDGSPAA----H 378
                                                                                                                                                                                                              VITVTQRNYTEYWSGSNSGNQXMEAVQKINYTVP---QSGTFKIEFPILEDSSELQLKAY 446
                                                                                                                                                                                                                                                                                                                   426 RQAIKSMTATAYOTQGGSENYLHVAITSTEİKPGDNLÞVNFNVRGNANSLNQIKYFTYLI 485
                                                                                                                                                                                                                                                                                                                                                        VSRGQLVAVGK-----QNSTMFSLTPENSWTPKACVIVYYIEDDGEIISDVLKIPVQ-- 552
                                                                                                                                                                                                                                                                                                                                                                                                                          ----LVFK-----NKIKLYWSKVKAEPSEKVSLRISVTQPDSIVGIVAVDKSVNLMNAS 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                              546 CMGTLVVKGASSRDDRIQ------KÞGAAMKIKLE-GDÞGARVGLVAVDKAVYUNDK 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      657 RRRSSVLLLDSKASKAAQFQDQGLRKCCEDĠMHENPMGYTCĖKRAKYIQĖGDACKAAFLE 716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          --HIV-------DIHDFSLGSSPHV-RKHFPETWIML-----DTNMG 702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LRLPYSVVKNEQVEIRAILYNYADEDIYVRVELIYNPAF----CSASTEGGRYRQQPPIK 879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      603 NDITMENVVHELELYNTGYYLGMFNNSFAVFQECGLWVLTDANLT-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----KDYIDGVYDN----AEYAERFMEENEG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1118
                                                                     274
                                                                                                                                        330
                                                                                                                                                                                                            390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   922
                                                                                                                                                                                                                                                                                                                                                        501
                                                                                                                                                                                                                                                                                                                                                                                                                          553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    참 염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \dot{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                               g
                                                                                             CD
                                                                                                                                                                        g
                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                           Ω
                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
ò
                                                                     ò
                                                                                                                                      ò
                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
```

```
L----REDANVCNK--FHLDVSVENVELNLKQAKGGKAALRLKICTRYLGEVDSTWTIID 1392
                                                                                                                                                                                                                                                                                            1393 ISMLTGFFDAEDLKRLSNGVDRYISKFEIDNNMAQKGTVVIYLDKVSHSEDECLHFKIH 1452
                                                                      1203 TNIQVTVTGPSSPSP-----LAVVQPMAV-----NISANGFGFAICQLNVYNVK 1247
                                                                                                                 1279 LNLDISIKLPEREVPERYSINDRNAVQARTVETKLNEDFTVSÅSGDGKATMTILTVYNAQ 1338
                                                                                                                                                                                                                                                                1301 VNLLSGFMVPSEAI----SLSETVKKVEYDH-----GKLNLYLDSVNETQ-FCVNIPAV 1349
                                                                                                                                                                                                                                                                                                                                                                                         62;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                     -- KENKDDLNHVDLNVCTSFSGPGRSGMALME
                                                                                                                                                                                                                                                                                                                                                          1350 RNFKVSNTODASVSIVDYYEPRROAVRSYNSEVKLSSCDLCSDVOGCRPCEDGASGSHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6 GPSIL----LILLTHLPLALG-SPMYSIITPNILRLESBETMVLEAHDAQGDVPVTVTW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         --- PGGNVTIGVELL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12.7%; Score 931; DB 2; Length 1663;
llarity 23.0%; Pred. No..4.5e-68;
Conservative 286; Mismatches 615; Indels 356;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       --SSVIFIFCFKLL-----YFMEL 1426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :| ::: |||
1513 KKIDLQLRIQKACAQNVDYVYKTKLLRIEEKDGNDIYFMDV 1553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/793,126
FILING DATE: 07-FEB-1997
CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 GPPLLTAAHLLCVCTAALAVAPGPRFLVTAPGIIR----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1, Application US/08793126
Patent No. 5849297
GENERAL INFORMATION:
APPLICANT: Harrison, Richard Alexander
APPLICANT: Farries, Charles Timothy
TITLE OF INVENTION: MODIFIED HUMAN C3 PROTEINS
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             United States of America
                                                                                                                                                                     1248 ASGSSRRRRSIQNOEAFDLDVAV--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAMM: BAKEr, HOLlie L.
REGISTRATION NUMBER: 31,321
REFRENCE/POCKET NUMBER: 1022
TELECOMMUNICATION:
TELEPHONE: (617) 526-6000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: HALE AND DORR LLP
STREET: 60 State Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1663 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (617) 526-5000
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1410 -----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS:
TOPOLOGY: lin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE: MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            376;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-793-126-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-793-126-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Si
Matches 376;
                                                                                                                                                                                                                   1339
```

Db 1059 FRQPSSAFAFUKRAPSTWLTAXIVKTFSLANNIALDSQVLCGAVKMILLEKQKPDG 1116 Oy 1026 EFWDFGRAPHSELQGGNKSPVTLTAXIVTSLIGTRKYQPNIDV-QESIH 1073 Db 1117 VPGDAPVHGEMGGGLRNNFENDWALTARIVTSLIGTRKYQPNIDV-QESIH 1073 1117 VPGDAPVHGEMGGGLRNNFENDWALTARIVTSLIGTRKYQPNIDV-QESIH 1170 Oy 117 KAGDFLEANY-MALQRSYTVALAITYALSVERALAMITWRAEQEGGMQFWVSES 1129 117 KAGDFLEANY-MALQRSYTVALAITYALSVERALAMITWRAEQEGGMQFWVSES 1129 Db 117 KAGDFLEANY-MALQRSYTVALAITYALSVERALAMITWRAEQEGGMQFWVSES 1129 OY 1180 KLABASEPA-LMYTBRTNIQVTVTGPSSPSPLANTTA 1214 OY 1180 KLABASEPA-LMYTBRTNIQVTVTGPSSPSPLANT	RESULT 4 US-09-132-271-1 Sequence 1, Application US/0913271 Fatent No. 6221657 FATENTAL INTERMATION PAPLICANT: Farries, Charles Timothy TITLE OF INVENTION: MODIFIED HUMAN C3 PROTEINS NUMBER OF SEQUENCES: 2 CORRESPONDENCE ADDRESS: ADDRESSEE: HALE AND DORR LLP STREET: 60 State Street CITYE: Deston STRY: NA. COMPUTER: Lab AND DORR LLP STRY: MA. COMPUTER: Eloppy disk COMPUTER: Eloppy disk COMPUTER: IBM PC Compatible OPERATING SYSTER: PC-DOS/MS-DOS SOFTWARE: PAPLICATION MESSIFICATION APPLICATION NUMBER: US/09/132,271 FILING DATE: CLASSIFICATION NUMBER: 103,286.377 FELING DATE: RESERVANCE/DOCKET NUMBER: 31,321 RESERVANCE/DOCKET NUMBER: 31,331 RESERVANCE/DOC
SO EHCPSQVTVKAELLKTASNLIVSV-LEAEGVFEKGSFKTLTLPBLEBLNSADBIY 102 i	EISEVIKIEVOLVFKNKIKLYWSKVKAEPSEKVSLRISVTQPDSIVGI EISEVANDSVWADVKOSCVGSLVVKSGOSEDRQPVPGQQMTLKIEGDHGARVV-L VAVDKSVMLMKASNDITMENVVHELELYNTGYYLGMFMNSFAVFQECGLWVLIDA VAVDKSVMLMKASNDITMENVVHELELYNTGYYLGMFMNSFAVFQECGLWVLIDA VAVDKSVMLMKASNDITMENVVHELELYNTGYYLGMFMNSFAVFQECGLWVLTDA VAVDKSVMLMKAKNKLTQSKIMDVVEKADIGCTPGSGKDYAGVFSDAGUTFTSSSGQQTA

S

```
|| | : || |:
1505 LCRD-ELCRCAEE 1516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1389 LCSDVQGCRPCED 1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 5
US-09-142-334-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-142-334-22
                                                                                                                                                                                                           1059
                                                                                                                                                                                                                                                                                                                                                                                                                        1274
                                                                                                       943
                                                                                                                                                                                                                                                                                                                                             1130
828
                          805
                                                                              863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                            요
                                                                     õ
                                                                                                    셤
                                                                                                                                                      임
                                                                                                                                                                                                      셤
                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                         ò
                                                                                                                               ò
                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           655
                                                                                                                                                                                             EH-----CPSQVTVKAELLKTASNLTVSV-LEAEGVFEKGSFKTLTLPSLPLNSADEIY 102
                                                                                                                                                                                                               103 ELRVTGRTQDEILFSNSTRLSFETKRISVFIQTDKALYKPKQEVKFRIVTLFSDFKPYKT 162
                                                                                                                                                                                                                                                                                                      163 SLNILIKDPKSNLIQQ-WLSQQSDLGVISKTFQLSSHPILGDWSIQVQVND---QTYYQS 218
                                                                                                                                                                                                                                                                                                                     268
                                                                                                                                                                                                                                                                                                                                                                          -----LPLSFWGKKKNITKTFKINGSANFSFNDEEMKNVMDSSNGLSEYLDLSSPG 319
                                                                                                                                                                                                                                                                                                                                                                                                                                                              320 PVEILTTVTESVTGISRNVSTNVFFKQHDYIIEFFDYTTVLKPSLNFTATVKVTRADGN- 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----TVILHSGSDMVQAERSGIPIVTSPYQIHFIKTPKYFKPGMPFDLMVFVTNPDGSP 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  --QLTLEERRNNVVIIVTQRNYTEYWSGSNSGNQKMEAVQKINYTVPQSGTFKIEPPILE 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DSSELQIKAYFLGSKSSMAVHS1FKSPSKTYIQLKT-----RDENIKVGSPFELVVSGN 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BAEQ-----ATRIMQALPYSTVGNSNNYLHLSVLRTELRPGETLNVNFLLRMDRAHE 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KRLKELSYMVVSRGQLVAVGK-----QNSTMFSLTPENSWTPKACVIVYY----IEDDG 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VAVDKSVNLANASNDITMENVVHELELYNTGYYLGMFMNSFAVFQECGLWVLTDA---- 644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | | : | : | : ||: :|| S56 QRAELQCPQPAARRRSVQLTEKRMDKVGKYPKELRKCCEDGMRENPMRFSCQRRTRFIS 715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      667 ENE-----GHIVDIH--------DFSLGSSPHV--RKHFPETWIW-- 696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              716 IGEACKKVFLDCCNYITELRRQHARASHLGLARSNLDEDIIAEENIVSRSEFPESWLWNV 775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   776 EDLKEPPKNGISTKL-----MNIFLKDSITTWEILAVSMSDKKGI-CVADPFEVTVMQ 827
                                                                                                                                                                                                                                                                            118 EKVVLVSLQSGYL-------FIQTDKTIYTPGSTVLYRIFTVNHKLLPVGR 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              747 PFFIFLNLPYSVIRGEEFALEITIFNYLKDATEVKVIIE--KSDKFDILMTSSEINATGH 804
                                                                                                                                                            ----PGGNVTIGVELL 49
                                                                                                                                                                                                                                                                                                                                                                                                                               282 ISLPESLKRIPIEDGSGEVVLSRKVLLDGVQNPRAEDLVGKSLYVSA-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   884 AYRVPVAVQGEDTVQSLTQGDGVAKLSINTHPSQK------PLSITVRTKKQELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                645 ----AEYAERFME
                                                                                                                                                                                                                                                                                                                                                        FQVSEYVL PKFEVTLQ - - TPLYCSMNSKHLNGTI TAKYTYGKPVKGDVTLTF - - - - - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EIISDVLKIPVQ-----LVFKNKIKLYWSKVKAE----PSEKVSLRISVTQPDSIVGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -----LDTNMGYRIYQEFEVTVPDSITSWVATGFVISEDLGLGLTTTPVELQAFQ
                                                                                                                   Gaps
                                                                                                                  Indels 356;
                                                                                       Query Match
Best Local Similarity 23.0%; Pred. No. 4.5e-68;
Matches 376; Conservative 286; Mismatches 615; Indels 35
                                                                                                                                           3 GPPLLTAAHLLCVCTAALAVAPGPRFLVTAPGIIR--
1663 amino acids
         TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                               , MOLECULE TYPE: protein US-09-132-271-1
LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  379
                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                              162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                590
                                                                                                                                                                                                                                                                                                                                                        219
                                                                                                                                                                                                                                                                                                                                                                                                            269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          697
                                                                                                                                                                   임
                                                                                                                                                                                                                  d
                                                                                                                                           à
                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Db
                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
KLSDSWQ---PRSLDIEVAAYALLSHFLQFQTSEGI-PIMRWLSRQRNSLGGFASTQDTT 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1334 AEGKGOGTLSVVTMYHAKAKDQLTCNK------PDLKVTIKPAPETEKRPQDAKNTMIL 1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RLKHLIVIPSGCGBONMIGMIPTVIAVHYLDBIBOWEKFGLEKROGALELIKKGYTQQLA 1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      967 YQREDGSFSAFGNYDPSGSTWLSAFVLRCFLEADPYIDIDQNVLHRTYTWL-KGHQKSNG 1025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ----FLESEFSRGISDNYTLALITYALSSVGSPKAKEALNMLTWRAEQEGGMQFWVSSES 1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1186 VALKALSEFAA-LMNTERTIVIQVTVTGPSSPSPLA----------VVQPMAVNIS 1229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1230 ANGFGFAICQLNVVYNVKASGSSRRRKSIQNQEAFDLDVAV-----KENKDDLNHVDL 1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NVCTSFSGPGRSGMALMEVNLLSGFMVPSE----AISLSETVKKVEY----DHGKLNL 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1333 YLDSVNETQ-FCVNIPAVRNFKVSNTQDASVSIVDYYEPRRQAVRSYNSEV---KLSSCD 1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                *** | | | : | | : | | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.
                                                                                                                                                              862
                                                                                                                                                                                                                                                                                                                     883 QQTITIPPPKSSLSVPYVIVPLKTGLQEVEVKAAVYHHFISDGVRKSLKVVPEGIRMNKTV 942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 911 -LASLIRMPYGCGEQNMINFAPNIYILDYLTKKKQLTDNLKEK---ALSFMRQGYQRELL 966
DFFIDLRLPYSVVRNEQVEIRAVLYNY-RQNQELKVRVELLHNPAFCSLATTKR----RH 882
                                                                                                                                                              QQTLLVPSEDGATVLFPIRP--THLGEIPITVTALSPTASDAVTQMILVKAEGIEKSYSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1447 YLDKVSHSEDDCLAFKVHQYFNVELIQPGAVKVYAYYNLEESCTRFYHPEKEDGKLNK--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SILLDLTDNRL--OSTLKTLSFSFPPNTV-----TGSER---VQITAIGDVLGPSING-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1026 EFWDPGRVIHSELQGG----NKSPVTLTAYIVTSLLGYRKYQPNIDV-QESIH-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Farries, Timothy C.
APPLICANT: Harrison, Richard A.
TILLE OF INVENTION: Down-Regulation Resistant C3 Convertase
TILLE OF INVENTION: Down-Regulation Resistant C3 Convertase
FILE REPERENCE: 4-30443/A.IMU/PCT
CURRENT APPLICATION NUMBER: US/09/142,334
CURRENT PILING DATE: 1999-04-15
EARLIER APPLICATION NUMBER: PCT/GB97/C0603
EARLIER PILING DATE: 1997-03-04
NUMBER OF SEQ ID NOS: 35
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 22
LENGTH: 1663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 3; Length 1663;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1171 KAGDFLEANY-MNLQRSYTVAIAGYALAQMGRLKGPLLNKFLT---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12.7%; Score 931;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 22, Application US/09142334
Patent No. 6268485
```

```
NIDV-QESIH----- 1073
|: :| ::
SAXDICEEQVNSLPGSIT 1170
                                                                                                                                                                              ----KENKDDINHVDL 1282
| : | : |
SAPETEKRPQDAKVTMIL 1386
                  C--ALSFMRQGYQRELL 966
                                                         LHRTYTWL-KGHQKSNG 1025
                                                                                                                                                                                                                      ----- VVQPMAVNIS 1229
                                                                                                                                                                                                                                         ASLLRSEETKENEGFTVT 1333
                                                                                                                                                                                                                                                                                                                       SKYELDKAFSDRNTLII 1446
                                                                                                                                                                                                                                                                                                                                            VRSYNSEV---KLSSCD 1388
                                                                                                                                        WRAEQEGGMQFWVSSES 1129
                                                                                                                                                                                                                                                                                                      KKVEY-----DHGKLNL 1332
                                                                                                                                                                                                                                                                                                                                                          ----TA 1214
LQGTPVAQMTEDAVDAE 998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HE TREATMENT
```

```
1056 IMS------YRNADYSYSVWKG--GSASTWLTAFALRVLGQVNKYVECNQNSICNSLL 1105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DVQESI----HFLESEFSRGISDNYTLALITYALSSVGS---PKAKEALNMLTWRAEQEG 1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         956 FWRQGYQRELLYQREDGSFSAFGNYDPSGSTWLSAFVLRCFLEADPYIDIDQNVLHRTYT 1015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1016 WL-KGHOKSNGEFWDPGRVIHSELQG-----GNKSPVTLTAYIVTSLLGYRK---YQPNI 1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G---MQFWVSS----ESKLSDSWQPRSLDIEVAAYALLSHFLQFQTSEGIPIMRWLSRQR 1172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1173 NSLGGFASTODITVALKALSEFAALMNTERTNIOVTVTGPSSPS-------PL 1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1219 AVVQPMAVN---ISANGFGFAICQLNVVYNVKASGSSRRRRSIQNQ-EAFDLDVAVKENK 1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DDLNHVDLNVCTSFSGPGR----SGMALMEVNLLSGPMVPSEAI-SLSETVXXVEYDH 1327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----GKLNLYLDSVNETOF-CVNIPAVRNFKVSNTQDASVSIVDYYEPRRQAVRSYNSEV 1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            955
                                                                                                                                                       RKHFPETWIWLDTNMGYRIYQEFEVTVPDSITSWVATGFVISEDLGLGLTTTPVELQAFQ 746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     859
            577 RISVTQPDSIVGIVAVDKSVNLAMASNDITMENVVHELELYNTGYYLGMFMNSFAVFQEC 636
                                                                                                                                                                                                                                    591 NMA-TGMDSWVALAAVDSAVYGVQRGAKKPLERVFQFLEKSDLGCGAGGGLNNANVFHLA 649
                                                                                                                                                                                                                                                                        658
                                                                                                                                                                                                                                                                                                       650 GLTFLTNANADDSQENDEPCKEILRPRRTLQKKIEEIAAKYKHSVVKKCCYDGACVNNDE 709
                                                                                                                                                                                                                                                                                                                                                                             710 TCEQRAARISLGPRCIKAFTECCVVASQLRANISH----KDMQLGRLHMKTLLPVSKPEI 765
                                                                                                                                                                                                                                                                                                                                                                                                                                   747 PFFIFLNLPYSVIRGEEFALEITIFNYLKDATEVKVIIEKSDKFDILMTSSEINATGHQQ 806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       822 DVFLEMNIPYSVVRGEQIQLKGTVYNYRTSGMQFCVKMSAVEG----ICTSESPVIDHQG 877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           860 YSQSILLDLIDNRLQSTL---KTLSFSFPPNTVTGSERVQITA----IGDVLGP--SIN 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRDENIKVGSPFELVVSGNK----RLKELSYMVVSRGQLVAVGKQNS-----TMFSLTP
                                                                                              DNHKALLVGEHLNIIVTPKSPYIDKITHYNYLILSKGKIIHFGTREKFSDASYQSINIPV
                                                                                                                                                                                                                                                                        -----YDNA-----
                                                                                                                                                                                                                                                                                                                                          ---EYAERF-------SSPHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   T-----LLVPSEDGATVLFPIRPTHLGEIPITVTALSPTASDAVTQMILVKAEGIEKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            910 GLASLIRMPYGCGEQNMINFAPNIYILDY-------LTKKKQLTDNLKEKALS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         :::::||:::|| |:::|| GNSDYKRIVACASYK-PSREESSSGSSHAVMDISLPTGISANEEDLKALVEGVDQLFTDY
                                                                                                                                   ENSWTPKACVIVYYI---EDDGEIISDVLKIPVQLVFKNKIKLYWS--KVKAEPSEKVSL
                                                                                                                                                                                                                                                                     GLWVLTDAN--------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1120
                                                                                                                                                                                                                                                                                                                                                                                                               687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1275
                                                                                                471
                                                                                                                                                                                                                                                                        637
                                                                                                                                                                                                                                                                                                                                            629
                                                                                                                                   522
                                                                                                                                                           8 B
                                                                                                                                                                                                                              තු දු
                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                         g
                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PKQEVKFRIVTLFSDFKPYKTSLNILIKDPKSNLIQQWLSQQSDLGVIS-KTFQLSSHPI 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POQSVKVRVYSLNDDLKPAKRETVLTFIDPEGSEVDM-VEEIDHIGIISFPDFKIPSNPR 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LGDWSIQVQVNDQ----TYYQSFQVSEYVLPKFEVTLQTPLYCSM---NSKHLNGTITA 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KYTYGKPV-KGDVTLTFLPLSFWGKKKNI------TKTFKINGSANFSFNDEEM 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KONYMDSSNGLSEYL--DLSSPGPVEILTTVTESVTGISRNVS-TNVFFKQHDXIIEFFDY 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTVLKPSLNFTATVKVTRADGNQLTLEERRNNVVI-----TVTQRNYTEYWSGSNSGNQK 411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PLFLKPGIPYPIKVQV-----KDSLDQLVGGVPVILNAQTIDVNQETSDLDPSKSVTRV 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEAVQKINYTVPQSGTFKIEFPILEDSSELQLKAYFLGSKSSMAVHSLFKSPSKTYIQLK 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SFKTLTLPSLP--LNSADEIYELRVTGRTQDEILFSNSTRLSFETKRISVFIQTDKALYK 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23 YVISAPKIFRVGASENÍVIQVYGYTEAFDATISIKSYPDKKFSYSSGHVHLSSENKFQNS 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28 FLVTAPGIIRPGGNVTIGVEL---LEHCPSQVTVKAELLKTASNLTVSV-LEAEGVFEKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
12.5%; Score 921; DB 4; Length 1676;
Best Local Similarity 24.0%; Pred. No. 3.1e-67;
Matches 379; Conservative 297; Mismatches 621; Indels 284;
                                                                                                                                                                    CIP
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/487,283A
FILING DATE: June 7, 1995
PRIOR APPLICATION NUMBER: US 08/236,208
FILING DATE: 02-MAY-1994
ATTORNEY/AGENT INFORMATION:
NAME: Sech A. Fidel.
REGISTRATION NUMBER: 34,49
REFERENCE/DOCKET NUMBER: ALX-152.1 CT
TELEPROMENICATION INFORMATION:
TELEPROME (203) 776-1790
TELEPROME (203) 776-1790
TELEPROME (203) 776-1790
TELEPROME: 1676 Amino Acids
TEREPROMETERISTICS:
LENGTH: 1676 Amino Acids
TYPE: Amino Acids
TYPE: Amino Acids
TYPE: Linear
MOLECULE TYPE: Linear
MOLECULE TYPE: Linear
MOLECULE TYPE: Linear
MOLECULE TYPE: No
ORIGINAL SOURCE:
ORGANISM: Haviland, D.L.
AUTHORS: Haviland, D.L.
AUTHORS: Haviland, D.T.
AUTHORS: Fleischer, D.T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS: Hunt, A.
AUTHORS: Wetsel, R.A.
TITLE: Complete cDNA Sequence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE: Complement Pro-C5
JOURNAL: Journal of Immunology
VOLUME: 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNE: 146.
PAGES: 362-368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Patent No. 6355245
TITLE: Comple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-487-283A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       412
```

g

ठ

Db

ð

d

ò

g

ò

g ò Q

ò

g

ò

ω

```
1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1018 KGHQKSNGEFWDPGRVIHSELQG---GNKSPVTLTAXIVTSLLGYR----KYQPNID--V 1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QESIHFLESEFSRGISDNYTLALITYALSSVGSPKAKEALNMLTWRAEQEGGMQFWVSSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SKLSDSWQPRSLDIEVAAYALLSHFLQFQTSEGIPIMRWLSRQRNSLGGFASTQDTTVAL 1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MKNVMDSSNGLSEYLDLSSPGPVEILTTVTESVTGISRNVSTNVFFKQHDYIIEFFDYTT 358
                                                                                                                                                                                     419 NYTVPQSGTFKIEFPILEDSSELQLKAYFLGSKSSMAVHSLFKSPSKTYIQLKTRDENIK 478
                                                                                                                                                                                                                       399 ILNIPLNAQ---SLPITVRTNHGDLPRERQATKSMTAIAYQTOGGSGNYLHVAITSTEIK 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      905 GPSING--LASLIRMPYGCGEQNMINFAPNI---YILDYLTKKKQLTDNIKEKALSFMRQ 959
241 -ENFHVSITARYLYGEEVEG-VAFVLFGVKIDDAKKSIPDSLTRIPIIDGDGKATLKRDT 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               627 ALTISTNINTKORSAAKCPOPANRRRSSVILLDSNASKAAEFODODLRKCCEDVMHENP 686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SLGSSPHVRKHFPETWIWL-----DINMGYRIYQEFEVTVPDSITSWVATGFVISEDLG 732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VKAEGIEKSYSQSILLDLTDNRLQST-----LKTLSFSFPPNTVTGSERVQITAIGDVL 904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VLKPSLNFTATVKVTRADGNQLTLEERRNNVVITVTQRNYTBYWSGSNSGNQKMEAVQKI
                                                                                                                                     || : : || || || : | || || 353 YFKFGMPYELTVYVINPDGSPA-----AHVPVVSBAF------HSMGTTLSDGTAKL
                                                                                                                                                                                                                                                             VGS--PFELVVSGN----KRLKELSYNVVSRGQLVAVGK-----QNSTMFSLTPENSWT
                                                                                                                                                                                                                                                                                                                                                                                                                 579 SVTQPDSIVGIVAVDKSVNLMNASNDITMENVVHELELYNTGYYLGMFMNSFAVFQECGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          733 LGLTTTPVELQAFQPPFIFLNLPYSVIRGEEFALEITIFNYLKDATEVKVIIEKSDKFDI
                                                                     FRSRFPNLNELVGHTLYAS------VTVMTESGSDMVVTEQSGIHIVASPYQIHFTKTPK
                                                                                                                                                                                                                                                                                     456 PGDNLPVNFNVKGNANSLKQIKYPTYLILNKGKIFKVGRQPRRDGQNLVTMNLHITPDLI
                                                                                                                                                                                                                                                                                                                                       PXACVIVYYIEDDGEIISDVLKIPVQ----LUFK--NKIKLYWSKVKAEPSEKVSLRI
                                                                                                                                                                                                                                                                                                                                                             | : ||:|||||: ||: ||: || E-GDPGARVGLVAVDKAVLNDKYKISQAKIWDTIEKSDFGCTAGSGQNNLGVFBDAGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ---YIDGVYD-NAEYAERFM--EENE-GHIVDIHDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              793 LMTSSEINATGHQQTLLVPSEDGATVLFPIRPTHLG--EIPITVTALSPTASDAVTQMLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            915 VVPEGVQKSIVTIVKLDPRAKGVGGTQLEVIKARKLDDRVPDTEIETKIIIQGDPVAQII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1189 KALSEFAALMNTER-TNIOVTVTGPSSPSPL------AVVOP---MAVNISANG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S------RSDFPKSWLWLTKDLTEEPNSQGISSKTMSFYLRDSITTWVVLAVSFTPTKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GYORELLYOREDGSFSAFGNYDPSGSTWLSAFVLRCF-LEADPYIDIDQNVLHRTYTWL-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         639 WVLTDANL-TKD------
                                                                         299
                                                                                                               359
                                                                                                                                                                                                                                                                                                                                                                               216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1129
                                                                                                                                                                                                                                                                                                                                         527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      857
                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              du
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                     g
                                                                                                           à
                                                                                                                                                 임
                                                                                                                                                                                     à
                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                     ठ
   1454 QIKDGHVILQLNSIPSSDFLCVRFRIFELFEVGFLSPATFTVYEYHRPDKQCTMFYST-- 1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SKHINGTITAKYTYGKPVKGDVTLTFLPLSFWGKKKNI----TKTFKINGSANFSFNDEE 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70 QTRVDMNPAGGMLVT---PILEIPAKEVSTDSRONOYVVVQVTGPQVRLEKVVLLSYQSS 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           127 --FLFIQTDKGIYTPGSPVLYRVPSMDHNTSKWAKTVIVEPQTPEGILVS---SNSVDLN 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             188 VISKTFQLSSHPILGDWSI--QVQVNDQTYYQSFQVSEYVLPKFEVTLQTP---LYCSMN 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68 NLTVSVLEAEGVFEKGSFKTLTLPSLPLNSADEIYELRVTGRTQDEILFSNSTRLSFETK 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18 AALAV-----APGPRFLVTAPGIIRPGGNVTIGVELL-EHCPSQVTVKA-----ELLKTAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10 AALLIGFPGSSHGALYTLITPAVLRTDTEEQILVEAHGDSTPKQLDIFVHDFPRKQKTLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 128 RISVFIQTDKALYKPKQEVKPRIVTLFSDFKPYKTSLNILIKDPKSNLIQQWLSQQSDLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels 276;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1642;
                                                                                                                                                                                                                                                                                                                                                         OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM: FY LUCY/MS-LUCS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/662,227
FILING DATE: U-JUN 1996
CLASSIFICATION: 530
ATTOMARY/AGENT INPORMATION:
NAME: OPELON, NORMAN F:
REGISTRATION NUMBER: 24,618
REFERENCE/POCKET NUMBER: 1126-0107-0X
TELECOMMULICATION:
TELEPHONE: 700-413-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
12.2%; Score 894; DB 2; Le
Best Local Similarity 22.5%; Pred. No. 5.5e-65;
Matches 361; Conservative 295; Mismatches 672;
                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: P.C.
STREET: 1755 S. JEFFERSON DAVIS HIGHWAY
CITY: ARLINGTON
                                                                                                                                                                                                                                               APPLICANT: BREDEHORST, REINHORST
APPLICANT: KOCK, MICHAEL
APPLICANT: FRITZINGER, DAVID
TITLE OF INVENTION: RECOMBINANT PROCUF
NUMBER OF SEQUENCES: 39
CARRESPONDENCE ADDRESS:
CADDRESSEE: OBLON, SPIVAK, MCCLELLAND
                                       1383 KLSSCDLCSDVQGCRPCEDGA 1403
                                                                         -----SNIKIQKVČEGAA 1524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                             VOGEL, CARL-WILHELM
BREDEHORST, REINHORST
                                                                                                                                                                     Sequence 2, Application US/08662277
Patent No. 592320
GENERL INFORMATION:
APPLICANT: VOGEL, CARL-WILHELM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1642 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 1642 amino acic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                703-413-2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  inear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22202
                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; MOLECULE T:
US-08-662-227-2
                                                                             1512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                         ò
                                                                       음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
```

us-10-020-095-4.rai

Page 9

CTDNLKEKALSFMRQ 959 | |::|:: |GINRTEAVNQIVT 1034 2----KYQPNID--V 1068 JDONVLHRTYTWL- 1017 | :: || SISHEIICGGVRWLI 1092 TLOTP---LYCSMN 242 GMFMNSFAVFQECGL 638 -EENE-GHIVDIHDF 678 ::|| | | | RDDNEDGFIADSDII 746 ALSPTASDAVTQMIL 850 rGSERVQITAIGDVL 904 ETKIIIQGDPVAQII 974 RLQPSEKFFYIDGN 240 FKINGSANFSFNDEE 298 |:|: PIIDGDGKATLKRDT 298 : | : | : HSMGTTLSDGTAKL 398 SKTYIQLKTRDENIK 478 |: : | | GNYLHVAITSTEIK 455 NSTMFSLTPENSWT 526 NLVTMNLHITPDLI 515 SKVKAEPSEKVSLRI 578 649 DLRKCCEDVMHENP 686 || | : : /QEALWSDGVRKKLK 914 : | | ::: pvrlekvvllsyoss 126 NLIQQWLSQQSDLG 187 KQHDYIJEFFDYTT 358 VASPÝQÍHFTKTPK 352 SSNSGNOKMEAVOKI 418 | :::: -----PGAAMKIKL 567 ILFSNSTRLSFETK 127

```
Length 1642;
                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                     Query Match
12.2%; Score 894; DB 4; L
Best Local Similarity 22.5%; Pred. No. 5.5e-65;
Matches 361; Conservative 295; Mismatches 672;
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WVLTDANL-TKD---
                                                                                                                       US-09-925-442-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      243
                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          793
                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \stackrel{\diamond}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
  | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : 
                                                                                QESTHFLESEFSRGISDNYTLALITYALSSVGSPKAKEALNMLTWRAEQEGGMQFWVSSE 1128
                                                                                                                                     1201
                                                                                                                                                                                                                                                                                                                                                                                                   1233 FGFAICQLNVVYNVKASGSSRRRSIQNQEAFDLDVAVKENKDDLNHVD-----LNVCT 1286
                                                                                                                                                                                                                                                                                                                                                                                                                                  | : | | ::::::|:||: | | : RYLGEVDSTWTIIDISMLTGFLPDAEDLTRLSKGVDRYISRYEVDNNMAQKVAVIIYLAK 1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SKLSDSWQPRSLDIEVAAYALLSHFLQFQTSEGIPIMRWLSRQRNSLGGFASTQDTTVAL 1188
                                                                                                                                                                                                                                       ----EEYNAHTHNIEGTSYALLALLKWKKFDQTGPIVRWLTDQNFYGETYGQTQATVMAF 1257
                                                                                                                                                                                                                                                                                               KALSEFAALMNTER-TNIQVTVTGPSSPSPL-----AVVQP---MAVNISANG 1232
                                                                                                                                                                                                                                                                                                                                              QALAEYEIQMPTHKDLNLDITIELPDREVPIRYRINYENALLARTVETKLNQDITVTASG 1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SFSGPGRSGMALMEVNLLSGFWVPSEAIS----LSETVKKVEYDHGKLN----LYLDS 1336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VNETQ-FCVNI PAVRNFKVSNTQDASVSI VDYYEPRRQAVRSYNSEVKLSSCDLCSDVQG 1395
                                                                                                                  ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -----HSSVIFIFCFKLLYFME 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: 1755 S. JEFFERSON DAVIS HIGHWAY CITY: ARLINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: OBLON, NORMAN F.
REGISTRATION NUMBER: 24,618
REFERENCE/DOCKET NUMBER: 1126-0107-0X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PREFAIL Release #1.0, Ver
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/925,442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BREDEHORST, REINHORST
KOCK, MICHAEL
FRITZINGER, DAVID
TITLE OF INVENTION: RECOMBINANT PROCVF
NUMBER OF SEQUENCES: 39
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 10-Aug-2001
CLASSIFICATION: cUnknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/017,947
FILING DATE: cUnknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: VOGEL, CARL-WILHELM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION:
TELEPHONE: 703-413-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 1642 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 2, Application US/09925442
Patent No. 6607897
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 703-413-2220
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CRPCEDGASGSHH---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 9
US-09-925-442-2
                                                                                                                                     1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1287
                                                                                   1069
                                                                                                                                                                                                                                          1202
                                                                                                                                                                                                                                                                                               1189
                                                                                                                                                                                                                                                                                                                                                 1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1490
                                                                                8
                                                                                                                             CP
                                                                                                                                                                                        ò
                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \stackrel{\sim}{\alpha}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
```

56; 127 126 298 358 478 626 792 187 353 YFKPGMPYELTVYVTNPDGSPA-----AHVPVVSEAF-----HSMGTTLSDGTAKL 398 399 ILNIPLNAQ----SLPITVRTNHGDLPRERQATKSMTAIAYOTQGGSGNYLHVAITSTEIK 455 578 567 686 678 732 LMTSSEINATGHQQTLLVPSEDGATVLFPIRPTHLG--EIPITVTALSPTASDAVTQMIL 850 69 800 I-CVAEPYEIRVMKVFFIDLQMPYSVVKNEQVEIRAILHNYVNEDIYVRVELLYNPAF--68 NLTVSVLEAEGVFEKGSFKTLTLPSLPLNSADEIYELRVTGRTQDEILFSNSTRLSFETK 128 RISVFIQTDKALYKPKQEVKFRIVTLFSDFKPYKTSLNILIKDPKSNLIQQWLSQQSDLG SKHINGTITAKYTYGKPVKGDVTLTFLPLSFWGKKKNI----TKTFKINGSANFSFNDEE 299 MXNVMDSSNGLSEYLDLSSPGPVEILTTVTESVTGISRNVSTNVFFKQHDYIIEFFDYTT 419 NYTVPQSGTFKIEFPILEDSSELQLKAYFLGSKSSMAVHSLFKSPSKTYIQLKTRDENIK -----YIDGVYD-NAEYAERFM--BENE-GHIVDIHDF 18 AALAV----APGPRFLVTAPGIIRPGGNVTIGVELL-EHCPSQVTVKA----ELLKTAS 188 VISKTFQLSSHPILGDWSI--QVQVNDQTYYQSFQVSBYVLPKFEVTLQTP---LYCSMN 182 FF-WPYNLPDLVSLGTWRIVAKYEHSPENYTAYFDVRKYVLPSFEVRLOPSEKFFYIDGN 241 -ENFHVSITARYLYGEEVEG-VAFVLFGVKIDDAKKSIPDSLTRIPIDGDGKATLKRDT 479 VGS--PFELVVSGN----KRLKELSYMVVSRGQLVAVGK-----QNSTMFSLTPENSWT 456 PGDNLPVNFNVKGNANSLKQIKYFTYLILNKGKIFKVGRQPRRDGQNLVTMNLHITPDLI 527 PKACVIVYYIEDDGEIISDVLKIPVQ-----LVFK--NKIKLYWSKVKAEPSEKVSLRI 627 ALTISTNINIKORSAAKCPOPANRRRSSVLLLDSNASKAAEFQDQDLRKCCEDVMHENP MGYTCEKRAKYIQEGDACKAAFLECCRYIKGVRDENQRESELFLARDDNEDGFIADSDII SLGSSPHVRKHFPETWIWL-----DINMGYRIYQEFEVTVPDSITSWVATGFVISEDLG LGLTTTPVELQAFQPFFIFLNLPYSVIRGEEFALEITIFNYLKDATEVKVIIEKSDKFDI 359 VLKPSLNFTATVKYTRADGNQLTLEERRNNVVITVTQRNYTEYWSGSNSGNQKMEAVQKI SVTQPDSIVGIVAVDKSVNLMNASNDITMENVVHELELYNTGYYLGMFMNSFAVFQECGL

Page

```
241 -ENFHVSITARYLYGEEVEG-VAFVLFGVKIDDAKKSIPDSLTRIPIIDGDGKATLKRDT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              399 ILNIPLNAQ---SLPITVRINHGDLPRERQATKSMTAIAYQTQGGSGNYLHVAITSTEIK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          456 PGDNLPVKFQCEGQCNSLKQIKYFTYLILNKGKIFKVGRQPRRDGQNLVTMNLHITPDLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NLTVSVLEAEGVFEKGSFKTLTLPSLPLNSADEIYELRVTGRTQDEILFSNSTRLSFETK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RISVFIQTOKALYKPKQEVKFRIVTLFSDFKPYKTSLNILIKDPKSNLIQQWLSQQSDLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MKNVMDSSNGLSEYLDLSSPGPVEILTTVTESVTGISRNVSTNVFFKQHDYIIEFFDYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NYTVPQSGTFKIEFPILEDSSELQLKAYFLGSKSSMAVHSLFKSPSKTYIQLKTRDENIK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PKACVIVYYIEDDGEIISDVLKIPVQ-----LVFK--NKIKLYWSKVKAEPSEKVSLRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SVTQPDSIVGIVAVDKSVNLMNASNDITMENVVHELELYNTGYYLGMFMNSFAVFQECGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        E-GDPGARVGLVAVDKAVYVLNDKYKISQAKIMDTIEKSDFGCTAGSGQNNLGVFEDAGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18 AALAV----APGPRFLVTAPGIIRPGGNVTIGVELL-EHCPSQVTVXA----ELLKTAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          188 VISKTFQLSSHPILGDWSI--QVQVNDQTYYQSFQVSEYVLPKFEVTLQTP---LYCSMN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SKHLNGTITAKYTYGKPVKGDVTLTFLPLSFWGKKKNI----TKTFKINGSANFSFNDEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VLKPSLNFTATVKVTRADGNQLTLEERRNNVVITVTQRNYTEYWSGSNSGNQKMEAVQKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VGS--PFELVVSGN----KRIKELSYMVSRGQLVAVGK-----QNSTMFSLTPENSWT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            627 ALTISTNINTKORSAAKCPOPANRRRSSVILLDSNASKAAEFODODLRKCCEDVMHENP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              --YIDGVYD-NAEYAERFM--EENE-GHIVDIHDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1642;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
12.0%; Score 885; DB 1; Length 164
Best Local Similarity 22.4%; Pred. No. 3.1e-64;
Matches 359; Conservative 296; Mismatches 673; Indels
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
PRILING DATE: 07-APR-1993
ATTORNEY FACENT INFORMATION:
NAME: Oblon, No. 577343man F.
REGISTRATION NUMBER: 24,618
REFREENCE/DOCKET NUMBER: 1126-101-0
TELECHONE: (703) 413-3000
TELECHONE: (703) 413-3200
TELECHONE: (703) 413-220
TELECHONE: (703) 413-220
TELECHONE: (703) 413-220
TELECHONE: (703) 413-3000
TELECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              639 WVLTDANL-TKD-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1188
                                                                                                                                                                                                                                                                                                                                                                      QESIHFLESEFSRGISDNYTLALITYALSSVGSPKAKEALNMLTWRAEQEGGMQFWVSSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       : : : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | | : | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | | : | : | | : | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -----AVVQP---MAVNISANG 1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       :||:|: | : |: |: |: |: | OBLAEYEIQMPTHKDLNLDITUTELPDREVPIRYRINYENALLARTVETKLNQDITUTASG 1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SPSGPGRSGMALMEVNLLSGFMVPSEAIS----LSETVKKVEYDHGKLN----LYLDS 1336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VNETQ-FCVNIPAVRNFKVSNTQDASVSIVDYYEPRRQAVRSYNSEVKLSSCDLCSDVQG 1395
                                                                                                                 905 GPSING--LASLIRMPYGCGEQNMINFAPNI---YILDYLTKKKQLTDNLKEKALSFMRQ 959
             --CSASTKGQRYRQQFPIKALSSRAVPFVIVPLEQGLHDVEIKASVQEALWSDGVRKKLK 914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1093 LNRQQPDGAFKENAPVLSGTMQGGIQGAEEEVYLTAFILVALLESKTICNDYVNSLDSSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GYORELLYOREDGSFSAFGNYDPSGSTWLSAFVLRCF-LEADPYIDIDONVLHRTYTWL-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KGHOKSNGEFWDPGRVIHSELQG---GNKSPVTLTAYIVTSLLGYR----KYQPNID--V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SKLSDSWQPRSLDIEVAAYALLSHFLQFQTSEGIPIMRWLSRQRNSLGGFASTQDTTVAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FGFAI COLNVVYNVKASGSSRRRRSIQNQEAFDLDVAVKENKDDLNHVD-----LUNCT
                                                                                                                                                                                                                                                                     ENSIDGSKINHLIITPSGCGEQNMIRMAAPVIATYYLDTTEQWETLGINRRTEAVNQIVT
                                                                           VKAEGIEKSYSQSILLDLTDNRLQST-----LKTLSFSFPPNTVTGSERVQITAIGDVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CRPCEDGASGSHH------HSSVIFIFCFKLLYFME 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AND CVF2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MAIER & NEUSTADT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 45. Application US/08447411
| Patent No. 5773243
| GANEAL INFORMATION:
| APPLICANT: FRITZINGER, DAVID C. APPLICANT: FRITZINGER, DAVID C. APPLICANT: O'GGEL, CARL-WILHELM TITLE OF INVENTION: DNA ENCODING COBRA C3, CVF1, AND NUMBER OF SEQUENCES: 81
| CORRESPONDENCE ADDRESS: ADDRESSER: P.C. ADDRESSER: P.C. STREET: 1755 S. Jefferson Davis Highway, Suite 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 22202
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/447,411
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KALSEFAALMNTER-TNIQVTVTGPSSPSPL-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Arlington
STATE: Virginia
COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 10 \
US-08-447-411-45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1490
                                                                                                                                                                                                                                                                                                                                       960
             357
                                                                           851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      dd yy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
          g
                                                                                                                           셤
                                                                                                                                                                            상 점
                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                              \dot{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                        ò
```

127 126 187 181 242 240

69

276;

358

418 398 478 455

ò 임 ઠે g ò g 8 g ઠે g ò 음 8 엄 ò g ઠે g 8 d à g à В à g ò 엄

```
REGISTRATION NUMBER: 24,618
REFERENCE/DOCKET NUMBER: 1126-0107-0X
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    :
::
::
                           STREET: 1755 S. JEFFERSON DAVIS HIS STATE: VA STATE: VA COUNTRY: USA ZIP: 22202 COMPUTER READABLE FORM: MEDIUM TYPE: FLORDY disk COMPUTER: IBM PC COMPATIBLE COMPUTER: PREADABLE FORM: PC-DOS/MS-DOS SOFTWARE: PATENTIN Release #1.0, V
                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/08/662,227
FILING DATE: 11-4-UUN-1996
CLASSIFICATION: 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: OBLON, NORMAN F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1648 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LECCRESHONE: 703-413-2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 703-413-2220 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acid
STRANDEDNESS: si
   ADDRESSEE: P.C.
STREET: 1755 S.
CITY: ARLINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ωp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ||:| | | | | | | ||||||| | : | | | | : | | | : : | | | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : : | : : : | : : : : | : : : : | : : : : | : : : : : | : : : : : | : : : : | : : : : | : : : : : | : : : : | : : : : | : : : : : : | : : : : | : : : : | : : : : | : : : : | : : : : | : : : : : | : : : : | : : : : | : : : : : | : : : : : | : : : : : | : : : : : | : : : : : | : : : : : | : : : : : : | : : : : : | : : : : : : | : : : : : : : | : : : : : : | : : : : : : | : : : : : | :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GYQRELLYQREDGSFSAFGNYDPSGSTWLSAFVLRCF-LEADPYIDIDQNVLHRTYTWL-1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1018 KGHQKSNGEFWDPGRVIHSELQG---GNKSPVTLTAYIVTSLLGYR----KYQPNID--V 1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QESIHFLESEFSRGISDNYTLALITYALSSVGSPKAKEALNMLTWRAEQEGGMQFWVSSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SKLSDSWOPRSLDIEVAAYALLSHFLQFQTSEGIPIMRWLSRQRNSLGGFASTQDTTVAL 1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KALSEFAALMMTER-TNIQVTVTGPSSPSPL------AVVQP---MAVNISANG 1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OALAEYEIOMPTHKDINLDITIELPDREVPIRYRINYENALLARTVETKINQDITVTASG 1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   : | | | ::::::|| : : : | ::
RYLGEVDSTMTIIDISMLTGFLPDAEDLTRLSKGVDRYISRYEVDNNMAQKVAVIIYLNK 1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1233 FGFAICQLNVVYNVKASGSSRRRSIQNQEAFDLDVAVKENKDDLMHVD-----LNVCT 1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1287 SFSGPGRSGMALMEVNLLSGFMVPSEAIS----LSETVKKVEYDHGKLN----LYLDS 1336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VNETQ-FCVNIPAVRNFKVSNTQDASVSIVDYYEPRRQAVRSYNSEVKLSSCDLCSDVQG 1395
                                                                                                      732
                                                                                                                                                                                                                                 792
                                                                                                                                                                                                                                                                                                  856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GPSING--LASLIRMPYGCGEQNMINFAPNI---YILDYLTKKKQLTDNLKEKALSFMRQ 959
MGYTCEKRAKYIQEGDACKAAFLECCRYIKGVRDENQRESELFLARDDNEDGFIADSDII 746
                                                                                                                                                             747 S-----RSDFPKSWLWLTKDLTEEPNSQGISSKTMSFYLRDSITTWVVLAVSFTPTKG 799
                                                                                                                                                                                                                                                                                                                                                                793 LMTSSEINATGHQQTLLVPSEDGATVLFPIRPTHLG--EIPITVTALSPTASDAVTQMIL 850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VKAEGIEKSYSQSILLDLTDNRLQST-----LKTLSFSFPPNTVTGSERVQITAIGDVL 904
                                                                                                                                                                                                                                                                                                                                                                                                     SLGSSPHVRKHFPETWIWL-----DINMGYRIYQEFEVTVPDSITSWVATGFVISEDLG
                                                                                                                                                                                                                                 LGLTTTPVELQAFQPFFIFLNLPYSVIRGEEFALEITIFNYLKDATEVKVIIEKSDKFDI
                                                                                                                                                                                                                                                                                           I-CVAEPYEIRVMKVFFIDLOMPYSVVKNEQVEIRAILHNYVNEDIYVRVELLYNPAF--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----HSSVIFIFCFKLLYFME 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 25, Application Us/0866227
Patent No. 592320
GENERAL INFORMATION:
APPLICANT: VOCEL, CARL-WILHELM
APPLICANT: BREDEHORST, REINHORST
APPLICANT: ROCK, MICHAEL
APPLICANT: RETZINGEN, DAVID
TITLE OF INVENTION: RECOMBINANT PROCVF
NUMBER OF SEQUENCES: 39
CORRESPONDENCE ADDRESS:
ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CRPCEDGASGSHH----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -08-662-227-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1069
                                                                                                      579
                                                                                                                                                                                                                                     733
                                                                                                                                                                                                                                                                                                  800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1490
```

```
MASKHLNGTITAKYTYGKPVKGDVTLTFLPLSFWGKKKNI----TKTFKINGSANFSFND 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EEMKAVMDSSNGLSEYLDLSSPGPVEILTTVTESVTGISRNVSTNVFFKQHDYIIEFFDY 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             357 TTVLKPSLNFTATVKVTRADGNQLTLEERRNNVVITVTQRNYTEYWSGSNSGNQKMEAVQ 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                68 NLTVSVLEAEGVFEKGSFKTLTLPSLPLNSADEIYELRVTGRTODEILFSNSTRLSFETK 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PKYFKPGMPYELTVYVTNPDGSPA-----AHVPVVSEAF-----HSMGTTLSDGTA 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KINYTVPOSGTFKIEFPILEDSSELQLKAYFLGSKSSMAVHSLFKSPSKTYIQLKTRDEN 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           523 NSWTPKACVIVYYIEDDGEIISDVLKIPVQ-----LVFK--NKIKLYWSKVKAEPSEKV 574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18 AALAV----APGPRFLVTAPGIIRPGGNVTIGVELL-EHCPSQVTVKA----ELLKTAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          128 RISVFIQIDKALYKPKQEVKFRIVTLFSDFKPYKTSLNILI--KDPKSNLIQQMLSQQSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IKVGS--PFELVVSGN----KRLKELSYMVVSRGQLVAVGKQNS-----TM-FSLTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LGVISKTFQLSSHPILGDWSI--QVQVNDQTYYQSFQVSEYVLPKFEVTLQTP---LYCS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             284;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1648;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                    PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
12.0%; Score 880; DB 2; L
Best Local Similarity 22.7%; Pred. No. 8.2e-64;
Matches 365; Conservative 295; Mismatches 664;
JEFFERSON DAVIS HIGHWAY
```

99

69

185

```
음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1283 NVCTSFSGPGRSGMALMEVNLLSGFMVPSEAIS----LSETVKKVEYDHGKLN----L 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         956 FWRQGYQRELLYQREDGSFSAFGNYDPSGSTWLSAFVLRCF-LEADPYIDIDQNVLHRTY 1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1015 TWL-KGHQKSNGEFWDPGRVIHSELQG---GNKSPVTLTAYIVTSLLGYR----KYQPNI 1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              D--VQESIHFLESEFSRGISDNYTLALITYALSSVGSPKAKEALNMLTWRAEQEGGMQFW 1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1125 VSSESKLSDSWQPRSLDIEVAAYALLSHFLQFQTSEGIPIMRWLSRQRNSLGGFASTQDT 1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----EEYNAHTHNIEGTSYALLALLKMKKFDQTGPIVRWLTDQNFYGETYGQTQAT 1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1185 TVALKALSEFAALMNTER-TNIQVTVTGPSSPSPL------AVVQP---MAVNI 1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1254 VMAFQALAEYEIQMPTHKDLNLDITIELPDREVPIRYRINYENALLARTVETKLNQDITV 1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1229 SANGFGFAICQLNVVYNVKASGSSRRRRSIQNQEAFDLDVAVKENKDDLNHVD----L 1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YLDSVNETQ-FÇVNIPAVRNFKVSNTQDASVSIVDYYEPRRQAVRSYNSEVKLSSCDLCS 1391
                                                                                                                                                                                                                                                        634
                                                                GAR-----VGLVAVDKAVYVLNDKYKISQAKIWDTIEKSDFGCTAGSGQNNLGVFE 622
                                                                                                   649
                                                                                                                                 623 DAGLALTTSTNLNTKQRSAAKCPQPANRRRSSVLLLDSNASKAAEFQDQDLRKCCEDVM 682
                                                                                                                                                                   ----YIDGVYD-NAEYAERFM--EENE-GHIVD 674
                                                                                                                                                                                     683 HENPWGYTCEKRAKYIQEGDACKAAFLECCRYIKGVRDENQRESELFLARDDNEDGFIAD 742
                                                                                                                                                                                                                                     IHDFSLGSSPHVRKHPPETWIWL-----DINMGYRIYQEFEVTVPDSITSWVATGFVIS 728
                                                                                                                                                                                                                                                                                                       729 EDLGLGLTTTPVELQAFQPFFIFLNLPYSVIRGEEFALEITIFNYLKDATEVKVIIEKSD 788
                                                                                                                                                                                                                                                                                                                                 796 PTKGI-CVAEPYEIRVMKVFFIDLOMPYSVVKNEOVEIRAILHNYVNEDIYVRVELLYNP 854
                                                                                                                                                                                                                                                                                                                                                                       789 KFDILMTSSEINATGHQQTLLVPSEDGATVLFPIRPTHLG--EIPITVTALSPTASDAVT 846
                                                                                                                                                                                                                                                                                                                                                                                              855 AF----CSASTKGGRYRQOPPIKALSSRAVPFVIVPLEQGLHDVEIKASVQEALMSDGVR 910
                                                                                                                                                                                                                                                                                                                                                                                                                                         847 QMILVKAEGIEKSYSQSILLDLTDNRLQST-----LKTLSFSFPPNTVTGSERVQITAI 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         911 KKLKVVPEGVQKSIVTIVKLDPRAKGVGGTQLEVIKARKLDDRVPDTEIETKIIIQGDPV 970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GDVLGPSING--LASLIRMPYGCGEQNMINFAPNI---YILDYLTKKKQLTDNLKEKALS 955
514 LIPSPR--FVAYYQVGNNEIVADSVWVDVKDTCMGTLVVKGDNLIQMPGAAMKIKLEGDF 571
                                 SLRISVTQPDSIVGIVAVDKSVNLMNASNDITMENVVHELELYNTGYYLGMFMNSFAVFQ
                                                                                                 635 BCGLWVLTDANL-TKD----------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DVQCCRPCEDGASGSHH-----HSSVIFIFCFKLLYFME 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1486 IGNVCRCAGETCSSLNHQERIDVPLQIEKACETNVDYVYKTKLLRIEE 1533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1392
                                 575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                   650
                                                              g
                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                DP
                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                à
                                                                                                ò
                                                                                                                            P
                                                                                                                                                                 ò
                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       충
```

RESULT 12 US-09-017-947-35

```
128 RISVFIQTDKALYKPKQEVKFRIVTLFSDFKPYKTSLNILI--KDPKSNLIQQWLSQQSD 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   127 --FLFIQTDKGIYTPGSPVLYRVFSM--DHHTSKANKTVIVEFQTPEGILVS---SNSVD 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               186 LGVISKTFQLSSHPILGDWSI--QVQVNDQTYYQSFQVSEYVLPKFEVTLQTP---LYCS 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68 NLTVSVLEAEGVFEKGSFKTLTLPSLPLNSADEIYELRVTGRTQDEILFSNSTRLSFETK 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241 MNSKHLNGTITAKYTYGKPVKGDVTLTFLPLSFWGKKKNI----TKTFKINGSANFSFND 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DIFRSREPNINELVGHTLYAS-----VTVMTESGSDMVVTEQSGIHIVASPYQIHFTKT 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18 AALAV----APGPRFLVTAPGIIRPGGNVTIGVELL-EHCPSQVTVKA----ELLKTAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EEMKOVMDSSNGLSEYLDLSSPGPVEILTTVTESVTGISRNVSTNVFFKQHDYIIEFFDY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tch al Similarity 22.7%; Pred. No. 8.2e-64; 365; Conservative 295; Mismatches 664; Indels 284;
                                                                                                                                                                                                                            ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,
ADDRESSEE: P.C.
                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
APPLICATION DATA:
APPLICATION NUMBER: US/09/017,947
FILING DATE:
                                                                                                                                                                                                                                                                        : 1755 S. JEFFERSON DAVIS HIGHWAY ARLINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1126-0107-0X
                                                            APPLICANT: VGGEL, CARL-WILHELM
APPLICANT: BREDEHORST, REINHORST
APPLICANT: KOCK, MICHAEL
APPLICANT: FRITZINGER, DAVID
TITLE OF INVENTION: RECOMBINANT PROCVF
NUMBER OF SEQUENCES: 39
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/662,227
FILING DATE: 14-UTN-1996
ATTORNEY/AGENT INFORMATION:
Sequence 35, Application US/09017947
Patent No. 6303754
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: OBLON, NORMAN F.
REGISTRATION NUMBER: 24,618
REFERENCE/DOCKET NUMBER: 1126
TELECOMMUNICATION INFORMATION:
TELEPHONE: 703-413-3000
TELEFAX: 703-413-2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: 35:
SEQUENCE CHARACTERISTICS:
LENGTH: 1648 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        amino ació
                                                                                                                                                                                                                                                                                                                                              USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                         COUNTRY: UK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-017-947-35
                                                                                                                                                                                                                                                                             STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Si
Matches 365;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
```

ò 유 ò 원 ઠે 셤 ò 셤 8

```
1426 YLNKVSHSEDECLHPKILKHFEVGFIQPGSVKVYSYYNLDEKCTKFYHPDKGTGLLNKIC 1485
                                                                                                                                1333 YLDSVNETQ-FCVNIPAVRNFKVSNTQDASVSIVDYYEPRRQAVRSYNSEVKLSSCDLCS 1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                128 RISVFIQTDKALYKPKQEVKFRIVTLFSDFKPYKTSLNILI--KDPKSNLIQQWLSQQSD 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18 AALAV----APGPRFLVTAPGIIRPGGNVTIGVELL-EHCPSQVTVKA----ELLKTAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     68 NLTVSVLEAEGVFEKGSFKTLTLPSLPLNSADEIYELRVTGRTQDEILFSNSTRLSFETK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MCCLELLAND, MAIER & NEUSTADT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            284;
                                                                                                                                                                                                                                                                                                           --HSSVIFIFCFKLLYFME 1425
                                                                                                                                                                                                                                                                                                                                                              Length 1648;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ouery Match
12.0%; Score 880; DB 4; L.
Best Local Similarity 22.7%; Pred. No. 8.2e-64;
Matches 365; Conservative 295; Mismatches 664;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P.C. STREET: 1755 S. JEFFERSON DAVIS HIGHWAY CITY: ARLINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: 1126-0107-0X TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BREDEHORST, REINHORST
KOCK, MICHABL
FRITZINGER, DAVID
TITLE OF INVENTION: RECOMBINANT PROCVF
NUMBER OF SEQUENCES: 39
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/925,442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPALIBLE
OPERATING SYSTEM: PC CODGS/MS-DOS
SOFTWARE: PATENTIN Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/017,947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24,618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 35, Application US/09925442
Patent No. 6607897
GENERAL INFORMATION:
APPLICANT: VOGEL, CARL-WILHELM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 10-Aug-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGIH: 1648 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        703-413-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: OBLON, NORMAN F.
REGISTRATION NUMBER: 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 703-413-2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                DVQGCRPCEDGASGSHH---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MATION FOR SEQ ID NO: 35
SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 22202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 13
US-09-925-442-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-925-442-35
                                                                                                                                                                                                                                                                                                                1392
                                                                                                                                     ò
                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : | | ::::|:: | ::|::| :: | ::| :: | ::| :: | ::| :: | ::| :: | ::| :: | ::| :: | ::::| :: | :::| :: | ::| :: | ::| :: | ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1254 VMAFQALAEYEIQMPTHKDLNLDITIELPDREVPIRYRINYENALLARTVETKLNQDITV 1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   956 FWRQGYQRELLYQREDGSFSAFGNYDPSGSTWLSAFVLRCF-LEADPYIDIDQNVLHRTY 1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        D--VQESIHFLESEFSRGISDNYTLALITYALSSVGSPKAKEALNMLTWRAEQEGGMQFW 1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --- AVVQP---MAVNI 1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1283 NVCTSFSGPGRSGMALMEVNLLSGFMVPSEAIS----LSETVKKVEYDHGKLN----L 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        788
                                                                                                                                                                                        476
                                                                                                                                                                                                                                                                                                                                                              522
                                                                                                                                                                                                                                                                                                                                                                                                                                                     513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OMILVKAEGIEKSYSQSILLDDITDNRLQST-----LKTLSFSFPPNTVTGSERVQITAI 900
             TTVLKPSLNFTATVKVTRADGNQLTLEERRNNVVITVTQRNYTEYWSGSNSGNQKMEAVQ 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        523 NSWIPKACVIVYYIEDDGEIISDVLKIPVQ-----LVFK--NKIKLYWSKVKAEPSEKV 574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAR-----VGLVAVDKAVYVINDKYKISQAKIWDTIEKSDFGCTAGSGQNNLGVFE
                                                                                                     ---AHVPVVSEAF-----HSMGTTLSDGTA
                                                                                                                                                                                                                                                             KILLNIPLNAQ----SLPITVRINHGDLPRERQATKSMTAIAYQTQGGSGNYLHVAITSTE
                                                                                                                                                                                                                                                                                                                                                                                                                623 DAGLALTTSTNLNTKQRSAAKCPQPANRRRRSSVLLLDSNASKAAEFQDQDLRKCCEDVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KFDILMTSSEINATGHQQTLLVPSEDGATVLFPIRPTHLG--EIPITVTALSPTASDAVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AF----CSASTKGQRYRQQPPIKALSSRAVPFVIVPLEQGLHDVEIKASVQEALWSDGVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DSSIKKATNYLLKKYEK-LQRPYTTALTAYALA-----AADQLNDDRVLMAASTGRDHW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : : : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : 
                                                                                                                                                                                                                                                                                                                                                              IKVGS--PFELVVSGN----KRLKELSYMVVSRGQLVAVGKQNS-----TM-FSLTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SLRISVTOPDSIVGIVAVDKSVNLAMASNDITMENVVHELELYNTGYYLGMFMNSFAVFO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -----YIDGVYD-NAEYAERFM--EENE-GHIVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IHDFSLGSSPHVRKHFPETWIWL-----DTWMGYRIYQEFEVTVPDSITSWVATGFVIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        729 EDLGLGLTTTPVELQAFQPFFIFLNLPYSVIRGEEFALEITIFNYLKDATEVKVIIEKSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          796 PTKGI-CVAEPYEIRVMKVFFIDLOMPYSVVKNEQVEIRAILHNYVNEDIYVRVELLYNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901 GDVLGPSING--LASLIRMPYGCGEQNMINFAPNI---YILDYLTKKKQLTDNLKEKALS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            971 AQIIENSIDGSKINHLIITPSGCGEQNMIRMAAPVIATYYLDTTEQWETLGINRRTEAVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TWL-KGHQKSNGEFWDPGRVIHSELQG---GNKSPVTLTAYIVTSLLGYR----KYQPNI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1125 VSSESKLSDSWQPRSLDIEVAAYALLSHFLQFQTSEGIPIMRWLSRQRNSLGGFASTQDT
                                                                                                                                                                                        KINYTVPQSGTFKIEFPILEDSSELQLKAYFLGSKSSMAVHSLFKSPSKTYIQLKTRDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      683 HENPMGYTCEKRAKYIQEGDACKAAFLECCRYIKGVRDENQRESELFLARDDNEDGFIAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SDIIS-----RSDFPKWWLWLTKDLTEEPNSQGISSKTMSFYLRDSITTWVVLAVSFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SANGFGFAICQLNVVYNVKASGSSRRRRSIQNQEAFDLDVAVKENKDDLNHVD----L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1185 TVALKALSEFAALMNTER-TNIQVTVTGPSSPSPL-
                                                                                                PKYFKPGMPYELTVYVTNPDGSPA--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ECGLWVLTDANL-TKD-.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            847
                  357
                                                                                                         351
                                                                                                                                                                                                                                                                               397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1149
                                                                                                                                                                                        417
                                                                                                                                                                                                                                                                                                                                                                  477
```

8

В

à

엄

ò 임 ठ g à 셤 ð a ò 셤 8 음 8 원 ò 셤 δ 임 8 음 $\dot{\delta}$

ò

59;

```
FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: A
                                                                    1202
                                                                                           ò
                                                                                                                                 g
                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                       셤
                                  ò
                                                            a
                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .031 QIVTGYAQQMVYKKADHSYAAFTN--RASSSWIJAYVVKVFAMAAKMVAGISHEIICGGV 1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     971 AQIIENSIDGSKLNHLIITPSGCGEQNMIRMAAPVIATÝYLDTTEQWETLGINRRTEAVN 1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               956 FMRQGYQRELLYQREDGSFSAFGNYDPSGSTWLSAFVLRCF-LEADPYIDIDQNVLHRTY 1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1015 TWL-KGHQKSNGEFWDPGRVIHSELQG---GNKSPVTLTAYIVTSLLGYR----KYQPNI 1066
180 INFF-WPYNLPDLVSLGTWRIVAKYEHSPENYTAYFDVRKYVLPSFEVRLQPSEKFFYID 238
                                                                                                                      296
                                                                                                                                         297 EEMKAVVADSSNGLSEYLDLSSPGPVEILTTVTESVTGISRNVSTNVFFKQHDYIJEFFDY 356
                                                                                                                                                                                                                                                     357 TTVLKPSINFTATVKVTRADGNQLTLEERRNNVVITVTQRNYTEYWSGSNSGNQKMEAVQ 416
                                                                                                                                                                                                                                                                              351 PKYFKPGMPYELTVYVTNPDGSPA-----AHVPVVSEAF-----HSMGTTLSDGTA 396
                                                                                                                                                                                                                                                                                                                           476
                                                                                                                                                                                                                                                                                                                                                         453
                                                                                                                                                                                                                                                                                                                                                                                                                            454 IKPGDNLPVNFNVKGNANSLKQIKYFTYLILNKGKIFKVGRQPRRDGQNLVTMNLHITPD 513
                                                                                                                                                                                                                                                                                                                                                                                                                                                            574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      729 EDLGLGLTTTPVELQAFQPFFIFLNLPYSVIRGEBFALEITIFNYLKDATEVKVIIEKSD 788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           789 KFDILMTSSEINATGHQQTLLVPSEDGATVLFPIRPTHLG--EIPITVTALSPTASDAVT 846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            955 AF----CSASTKGQRYRQQPPIKALSSRAVPFVIVPLEQGLHDVEIKASVQEALWSDGVR 910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         847 QMILVKAEGIEKSYSQSILLDLIDLTDNRLQST-----LKTLSFSFPPNTVTGSERVQITAI 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           911 KKLKVVPEGVQKSIVTIVKLDPRAKGVGGTQLEVIKARKLDDRVPDTEIETKIIIQGDPV 970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901 GDVLGPSING--LASLIRMPYGCGEQNMINFAPNI---YILDYLTKKKQLTDNLKEKALS 955
                                                                                                                                                                                                                                                                                                                                                                                           477 IKVGS--PFELVVSGN----KRLKELSYMVVSRGQLVAVGKQNS-----TM-FSLTPE 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAR-----VGLVAVDKAVYVLNDKYKISQAKIWDTIEKSDFGCTAGSGQNNLGVFE 622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 623 DAGLALTTSTNLNTKORSAAKCPOPANRRRSSVLLLDSNASKAAEFODODLRKCCEDVM 682
                                                                                                                                                                                                            397 KLILNIPLNAQ---SLPITVRINHGDLPRERQATKSMTALAYQTQGGSGNYLHVAITSTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                              523 NSWTPKACVIVYYIEDDGEIISDVLKIPVQ-----LVFK--NKIKLYWSKVKAEPSEKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   514 LIPSPR--FVAYYQVGNNEIVADSVWVDVKDTCMGTLVVKGDNLIQMPGAAMKIKLEGDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   575 IHDPSLGSSPHVRKHFPETWIWL------DINMGYRIYQEFEVTVPDSITSWVATGFVIS
                                                   LGVISKTFQLSSHPILGDWSI --QVQVNDQTYYQSFQVSEYVLPKFEVTLQTP---LYCS
                                                                                                                      241 MNSKHLNGTITAKYTYGKPVKGDVTLTFLPLSFWGKKKNI----TKTFKINGSANFSFND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                575 SLRISVTQPDSIVGIVAVDKSVNLMNASNDITMENVVHELELYNTGYYLGMFMNSFAVFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ------YIDGVYD-NAEYAERFM--EENE-GHIVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   683 HENPMGYTCEKRAKYIQEGDACKAAFLECCRYİKGVRÖENQRESELFLARDDNEDGFIAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  D--VQESIHFLESEFSRGISDNYTLALITYALSSVGSPKAKEALNMLTWRAEQEGGMQFW
                                                                                                                                                                                                                                                                                                                         KINYTVPQSGTFKIEFPILEDSSELQLKAYFLGSKSSMAVHSLFKSPSKTYIQLKTRDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    743 SDIIS------RSDFPKWWLWLTKDLTEEPNSQGISSKTMSFYLRDSITTWVVLAVSFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ECGLWVLTDANL-TKD-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1067
                                                   186
                                                                                                                                                                                                                     297
                                                                                                                                                                                                                                                                                                                         417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   650
                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                   δ
                                                                                                                    ઠે
                                                                                                                                             g
                                                                                                                                                                                   ò
                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                       \delta
                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
--AVVQP---MAVNI 1228
                                                                                                                                                                                                             1254 VMÁFQÁLAÉYEIQMPTHKDLNLDÍTIELÞDREVÞIRYRINYENALLARTVETKLNQDITV 1313
                                                                                                                                                                                                                                                                                                                  1314 TASGDGKATMTILTFYNAQL----QEKANVCNK--FHLNVSVE--NIHLNAMGAKGALML 1365
                                                                                                                                                                                                                                                                                                                                                                       1283 NVCTSFSGPGRSGMALMEVNLLSGFMVPSEAIS-----LSETVKKVEYDHGKLN----L 1332
                                                                                                                                                                                                                                                                                                                                                                                                      1333 YLDSVNETQ-FCVNIPAVRNFKVSNTQDASVSIVDYYEPRRQAVRSYNSEVKLSSCDLCS 1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1149 DSSIKKATNYLLKKYEK-LQRPYTTALTAYALA-----AADQLNDDRVLMAASTGRDHW 1201
                                                                                         1125 VSSESKLSDSWQPRSLDIEVAAYALLSHFLQFQTSEGIPIMRWLSRQRNSLGGFASTQDT
                                                                                                                                                                                                                                                                  SANGEGFAICQLNVVYNVKASGSSRRRRSIQNQEAFDLDVAVKENKDDLNHVD----L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1392 DVQGCRPCEDGASGSHH---------HSSVIFIFCFKLLYFME 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: BREDEHORST, REINHARD
PEPLICANT: VOGEL, CARL-WILHELM
TITLE OF INVENTION: DNA ENCODING COBRA C3, CVF1, AND CVF2
NUMBER OF SEQUENCES: 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MAIER & NEUSTADT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1755 S. Jefferson Davis Highway, Suite 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/447,411
                                                                                                                                                          1185 TVALKALSEFAALMNTER-TNIQVTVTGPSSPSPL----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OBLON, SPIVAK, MCCLELLAND,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1126-101-0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/043,747
FILING DATE: 07-APR-1993
ATTORNEY/AGENT INFORMATION:
NAME: Oblon, No. 5773243man F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-447-411-76
; Sequence 76, Application US/08447411
; Patent No. 2773243
; GENERAL INFORMATION:
APPLICANT: FRITZINGER, DAVID C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Oblon, No. 5773243man F. REGISTRATION NUMBER: 24,618
REFERENCE/DOCKET NUMBER: 1126-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FRITZINGER, DAVID C. BREDEHORST, REINHARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
TELEPAX: (703) 413-3200
TELEFAX: (703) 413-220
TELEX: 248855 OPAT UR
INFORMATION FOR SEQ ID NO: 76:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatibl OPERATING SYSTEM: PC-DOS/W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1333 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: protein US-08-447-411-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: OBLON, SI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Arlington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               amino
```

Db 978 ENALLAQTVETKINEDFTVSASGDGKATWILITUVNAQLREDANVCNK-FHLDVS 1031 Qy 1270 VKENKDDLNHYDLNYCTSSGPGRSGNALMEVNLLSGFWYPSEAIS-LSETYK 1321	RESULT 15 US-08-662-227-34 i Sequence 3. Application US/08662227 i Patent No. 592320 i GENERAL INFORMATION: APPLICANT: VOCEM, CARL-WILHELM APPLICANT: ROCK, MICHAEL APPLICANT: RECOMBINANT PROCVF INTIE OF SEQUENCES: 39 CORRESPONDENCE ADDRESS: ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, ADDRESSEE: P.C. STREET: 1755 S. JEFFERSON DAVIS HIGHWAY CITY: ARLINGTON STRATE: VA COUNTRY: USA COUNTRY: USA STREET: 22202 MEDIUM TYPE: Floppy disk	COMPUTER: IBM PC compatible COMPUTER: IBM PC compatible SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/662,227 FILING DATE: 14-JUN-1996 CLASSIFICATION: 530 ATTORNEY/AGENT INFORMATION: NAME: OBLON, NORMAN F. REGISTRATION NUMBER: 24,618 REGISTRATION NUMBER: 22,618 REGISTRATION NUMBER: 1126-0107-0X TELEFONE: 703-413-3000 TELEFAX: 703-413-320 INFORMATION FOR SEQ ID NO: 34: SEQUENCE CHARACTERISTICS: LENGTH: 1333 amino acids TYPE: amino acid STRANDEDNESS: single TORDCOGY: linear NOLECULE TYPE: protein US-08-662-227-34	Query Match 10.3%; Score 758.5; DB 2; Length 1333; Best Local Similarity 24.4%; Pred. No. 8.2e-54; Matches 301; Conservative 208; Mismatches 477; Indels 247; Gaps 46; Qy 349 YIIEFFDYTTVLKPSLNFTATVKVTRADGNQLTLEERRNNVITVTQRNYTEYWSGSNSG 408
Query Match Best Local Similarity 24.4%; Score 768.5; DB 1; Length 1333; Best Local Similarity 24.4%; Pred. No. 1.2e-54; Matches 301; Conservative 208; Mismatches 477; Indels 247; Gaps 45; Qy 349 YILEPDYTVLKPEINFTATKVTRADGNOLTLEERRNNVITVTQRNYTEYMSGSNS 408	OY 516 M-FSITPENSWTPKACVIVYXIEDDGEHISDVLKIPVQLVFKNKIKLY 562		1056 817 1106 866 1166 918

118	WSKVKABPSEKVSLRISVTQPDSIVGIVAVDKSVNLAMASNDITMENVVHELBLYNTGYY 622 	LGMFMNSFAVFQECGLWVLTDANLT	KDYIDGYYDN	DIHDFSLGSSPHV-RKHFPETWIMLDINMGYRIYQBFEVTVPDSITSW 720	EDLGLGLTTTPVELQAFQPFFIFIALPYSVIRGEEFALEITIFNY 773 	LKDATEVKVIIEKSDKFDILMTSSEINATGHQQTLLVPSEDGATVLFPIRPTHLGEIP 831 :	ITVTALSPTASDAVTQMILVKAEGIEKSYSQSILLDLTDNRLQSTLKTLSFSFP 885 : :	PNTVIGSERVQITAIGDVLGPSINGLASLIRMPYGGGGNMINF-APNIYILDYLT 940 	KKKQLTDNILKEKALSFWRQGYQRELLYQREDGSFSAFGNYDFSGSTWLSAFVLRCF-LEA 999 	DPYIDIDQNVJHRTYTWL-KGHQKSNGEFWDPGRVIHSELQGGNKSPVTLTAXIVTS 1055 	DVQESIHFLESEFSRGISDNYTLALITYALSSVGSPKAK 1105 : :	EALNMLTWRAEQEGGMQFWVSSESKLSDSWQPRSLDIEVAAYALLSHFLQFQTSEGIPIM 1165 	RWLSRQRNSLGGFASTQDTTVALKALSEFAALMNTER-TNIQVTVTGPSSFSP 1217 	LAVVQPMAVNISANGFGFAICQLNVVYNVKASGSSRRRRSIQNQBAFDLDVA 1269 	VKENKDDLMHVDLNVCTSFSGPGRSGMALMEVNLLSGFWVPSEAIS-LSETVK 1321	KVEYDHGKLNLXLDSVNETQ-FCVNIPAVRNFKVSNTQDASVSIVDXYEPR 1371	KLSSCDLCSDVQGCRPCEDGAS 1404
HVAITSTEIKPGDNLPVNFNVRGNANS -FSLTPENSWIPKACVIVYYIEDDGEI -	WSKVKABPSEKVSLRISVTQPDS : : : : PGAAMKIKLE-GDPGP	LGMFMNSFAVFQECGLWVLTDANLT- AGSGQNNLGVFEDAGLALTTSTNLNT	KDYIDGVYDNAEY ::: DQDLRKCCEDGMHENPMGHTCEK	DIHDFSLGSSPHV-RKHFPETWIML- 	VATGFVISEDLGLGLTTT : : ELLAVGLSPTKGICV	LKDATEVKVIIEKSDKFDILMTSSEI	ITVTALSPTASDAVTQMILVKAE 	PNTVTGSERVQITAIGDVLGPSING- : : : : : : DTEIEJKITIQGDPVAQTIENSIDGS	KKKQLTDNLKEKALSFMRQGYQR : : : : : QWETLGINRRTEAVNQIMTGYAQ	DPYIDIDQNVLHRTYTWL-KGHC : : XIVKDINHEIVCGGMRWLILNRC	LLGYRKYQPNIDVQESIHFLESEFSRG- 	EALNMLTWRAEQEGGMQFWVSSESK 	RWLSRQRNSLGGFASTQDTTVAI	IAVVQPMAVNISANG	VKENKDDLNHVDLNVC 	KGKINLYLE : :: :: RYISMFEINNNMAQKGTVIIYLE	RQAVRSYNSEVKLSSCDLCSDVQGCRPCEDGAS
8 17 17	563 242	623	648 354	674	721	774	832 579	886 639	941	1000	1056	1106	1166 918	1218	1270	1322	1372
90 A	B Ś	S G	\$ A	දු දු	S S	S q	8 S	Sy q	S a	S S	S S	රු පු	\$ g	\$ g	S S	S G	ò

1152 EKCTKIYHPDEATGLLNKICVGNVCRCAEETCS 1184

Ωp

Search completed: August 10, 2004, 19:34:42 Job time : 34 secs

This Page Blank (155)

us-10-020-095-3.rnpb

Sequence 46128, A
Sequence 1286, A
Sequence 6156, App
Sequence 46660, A
Sequence 204326, Sequence 204326, App
Sequence 204326, App
Sequence 26, App
Sequence 26, App
Sequence 26, App
Sequence 27, App
Sequence 27, App
Sequence 27, App
Sequence 29, Appli
Sequence 29, Appli
Sequence 19, App
Sequence 19, Appli
Sequence 19, Appli
Sequence 11, Appli
Sequence 125, App
Sequence 125, App
Sequence 125, App
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl
Sequence 127, Appl

```
1816 ACAATGGAAAATGTGGTCCATGAGTTGGAACTTTATAACACAGGATATTATTATGGCATG 1875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6 GTCCGAAAAATTCCTGTTCAGCTTGTTTTTAAAAATAAGATAAAGCTATATTGGAGTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1756 ATAGTIGGGATIGTAGCIGTIGACAAAAGTGTGAAATCTGATGAATGCCTCTAATGATATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1636 GTTCTAAAATTCCTGTTCAGCTTGTTTTTAAAATAAGATAAGCTATATTGGAGTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1696 GIGAAAGCIGAACCAICIGAGAAAGICICITIAGGAICICIGIGACACAGCCIGACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 66 GIGAAAGCIGAACCAICIGAGAAAGICICICITAGGAICICIGIGAGCACAGCCIGACICC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 9; Length 3033;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4; Indels
6 US-10-242-535A-46128

US-09-960-322-12867

US-09-960-322-12867

3 US-10-085-783A-46660

6 US-10-027-632-204326

6 US-10-027-632-204326

1 US-10-027-632-204326

1 US-10-027-632-204326

1 US-10-027-632-204326

1 US-10-085-783A-55515

5 US-10-085-783A-55515

5 US-10-085-783-268

1 US-09-880-107-3727

5 US-10-085-198-27

6 US-10-085-198-27

6 US-10-085-198-27

6 US-10-085-198-27

6 US-10-085-198-27

1 US-09-972-211-1

23 US-10-096-625-1

3 US-10-096-625-1

3 US-10-096-625-1

4 US-09-764-886-125-1

6 US-09-764-886-125-1

6 US-09-764-886-125-1

6 US-09-764-886-125-1

6 US-09-764-886-125-1

6 US-09-764-886-125-1

6 US-09-764-886-125-1

6 US-09-764-886-125-1

6 US-09-764-886-125-1

6 US-09-764-886-125-1

6 US-09-764-886-125-1

6 US-09-764-886-125-1

6 US-09-764-886-125-1

6 US-09-764-886-125-1

6 US-09-764-886-125-1

6 US-09-764-886-125-1

6 US-09-764-886-125-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 2584.6;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                              ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match . 60.3%;
Best Local Similarity 98.0%;
Matches 2648; Conservative 0
   TYPE: DNA; ORGANISM: Homo sapiens
US-09-833-381-1810
  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1810, Ap
Sequence 160, App
Sequence 160, App
Sequence 201, App
Sequence 223, App
Sequence 48, Appl
Sequence 48, Appl
Sequence 48, Appl
Sequence 48412, A
Sequence 45412, A
Sequence 29628, A
Sequence 29628, A
Sequence 29628, A
                                                                           August 18, 2004, 00:29:55; Search time 2187 Seconds (without alignments) 9618.028 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                 1 atgcagggcccaccgctcct......ttatggaactttggctgtga 4287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Description
                                                                                                                                                                                                                                                                                                                            Published Applications NA:*

1: /cgn2_6/ptodata/1/pubpna/Der PUBCOMB.seq:*

2: /cgn2_6/ptodata/1/pubpna/PcT_NEW_PUB.seq:*

3: /cgn2_6/ptodata/1/pubpna/Der NEW_PUB.seq:*

4: /cgn2_6/ptodata/1/pubpna/USO6_NEW_PUB.seq:*

5: /cgn2_6/ptodata/1/pubpna/USO6_NEW_PUB.seq:*

6: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*

7: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*

8: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*

9: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*

10: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*

11: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*

12: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*

13: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*

14: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*

15: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*

16: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*

16: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*

17: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*

18: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*

19: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*

19: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*

19: /cgn2_6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*
                                                                                                                                                                                                                              6451454
             GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-833-81-1810
US-09-833-81-1810
US-10-108-260A-953
US-10-112-944-160
US-10-276-774-601
US-10-276-774-601
US-10-276-774-601
US-10-133-013-23
US-10-160-162-48
US-10-160-162-208
US-10-185-783A-45412
US-10-085-783A-45412
US-10-085-783A-45412
US-10-085-783A-45412
US-10-085-783A-45412
US-10-085-783A-45412
US-10-085-783A-46128
                                                                                                                                                                                                                           of hits satisfying chosen parameters:
                                                                                                                                                                                                       3225727 seqs, 2453303834 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUMMARIES
                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                        nucleic search, using sw model
                                                                                                                                                                     IDENTITY NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                    Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-020-095-3
4287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score
                                                                                                                                                                                                                              Total number
                                                        OM nucleic
                                                                                                                                                                                                                                                                                                                                  Database :
                                                                                                                                                Sequence:
                                                                                                                                                                                                       Searched:
                                                                              Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
N
```

1815

51;

us-10-020-095-3.rnpb

Page 3

	486 AAGCCAAAGCAAGAAGTTCGCATTGTTACACTCTTCTGAGATTTTAAGCCTTAC 545 481 AAAACCTCTTTAAAGTTCTCATTAAGGACCCCAATCGATTGATCGAACAGTGGTTG 540	546 AAAACCTCTTTAAACATTCTCATTAAGGACCCCAAATCAAATTTGATCCAACAGTGGTTG 605 541 TCACAACAAAGATCTTGGAGTCATTTCCAAAACTTTCAGCTATCTTCCAATA 600		CTTGGTGACTGGTCTATTCAAGTTCAAGTGACCAGACATACTACTATCAATTCAG	661 GITTCAGAATAIGIAFTACCAAAATTIGAAGIGACTTIGCAGACACCATTAIATIGITCT 720 	721 ATGAATTCTAAGGATTTAAATGGTACCATCAGGGAAGGTATACATATGGGAAGCCAGTG 780 	781 AAAGGAGACGTAACGCTTACATTTTACCTTTATCCTTTTGGGAAAGAAGAAAATATT 840 	841 ACAAAAACATTTAAGATAAATGGATCTGCAAACTTCTCTTTTAATGATGAAGAGATGAAA 900 	901 AATGTAATGGATTCTTCAAATGGACTTTCTGAATACCTGGATCTATCT	GTAGAAAITTTAACCACAGTGACAGAATCAGTTACAGGTATTTCAAGAAATGTAAGCACT 	AATGTGTTCTTCAAGGAACATGATTACATCATTGAGTTTTTTGATTATACTACTGTCTTG			1201 TACTGGAGCGGATCTAACAGTGGAAATCAGAAAAGGAAGCTGTTCAGAAAATAAAT	actgreccearagtggaacttttaagattgaalteecaateetggaggatteeagtgaggelillillillillillillillillillillillillil	1321 CTACAGTTGAAGGCCTATTTCCTTGGTAAAAGTAGCATGGCAGTTCATAGTCTGTTT 1380	1381 AAGTCTCCTAGTAAGACATACATCCAACTAAAAACAAGAGGTGAAAATATAAAGGTGGGA 1440 	1441 TCCCCTTTGAGTTGGTGGTTAGTGGCAACAACGATTGAAGGAGTTAAGGTATATGGTA 1500
සි	a &	g 8	i a è		<i>장</i> 웜	\(\delta\)	<i>장</i> 점	ò a	ò a	Qy	cy Ga	Qy Dp	λ _o q _o	δλ qa	δγ Op	QV Db	& A	λ ₀
aaactcaacctctatttagattctgtaaatgaaacccagttttgtgttaatattcctgct 	Qy 4045 GTGAGAAACTTTAAAGTTTCAAATACCCAAGATGCTTCAGTGTCCATAGTGGATTACTAT 4104	Qy 4105 GAGCCAAGGAGACAGGCGGTGAGAAGTTACAACTCTGAAGTGAAGCTGTCCTCCTGTGAC 4164 Db 2526 GAGCCAAGGAGACAGGCGGTCAGAAGTTACAACTCTGAAGTGAAGCTGTCCTCTGTCAC 2585	4165 CTTTGCAGTGATGTCCAGGGCTGCCGTCTTGTGAGGATGGAGCTTCAGGCTCCCATCAT	4225 CACICITCAGICATITITATITICAAGCITCIGIACITATITATAGAACITITIGAGCITCIGIACITITAGAACITITIGAGCIG	Db 2646 CACTCTTCAGTCATTTTTATTTTCTGTTTCAAGCTTCTGTACTTTATGGAACTTTGGCTG 2705 Qy 4285 TGA 4287	Db 2706 TGA 2708	RESULT 2 VS-10-108-260A-953 Sequence 953, Application US/10108260A Publication No. US20040005560A1	O	; CURRENT APPLICATION NUMBER: US/10/108,260A ; CURRENT FILING DATE: 2002-03-27 ; NUMBER OF SEQ ID NOS: 5458 ; SOFTWARE: PatentIn Ver. 2.1	; SEQ ID NO 953 ; LENGTH: 2273 ; TYPE SEQ SEQ SEQ SEQ SEQ SEQ SEQ SEQ SEQ SE	Query Match 45.9%; Score 1969.4; DB 16; Length 2273; Best Local Similarity 99.9%; Pred. No. 0; Matches 1970; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	CCACCGCTCCTGACCGCCGCCCACTCCTGTGGGTGTGCACGCCGCGCGTG 60	61 GCCGTGGCTCCCGGGCTTTCTGGTGACAGCCCCAGGGATCATCAGGCCCGGAGGA 12 	121 AAIGIGACTATIGGGGTGGAGCTTCTGGAACACTGCCCTTCACAGGTGACTGAAGGCG 18	181 GAGCTGCTCAAGACACCAACAACCTGCTGCTCCTGGAAGCAGAGGAGCTTT 24	241 GAAAAAGGCTCTTTTAAGACACTTACTCTTCCATCACTACCTCTGAACAGTGCAGATGAG 306 GAAAAAGCTCTTTTAAACACTTACTTCATCACTACCTCTGAACAGTGCAGATGCAGAAAAAGCTTTTTAAAAAAAA	301 ATTATGAGCTACGTGTAACCGGACGTACCCAGGATGAGATTTATTCTCTAATAGTACC	4, 4, 3, 6,

Ϊ;

139 120 199 180 259 240 319

09

```
841 ACAAAACTTTAAGATAAATGGATCTGCAAACTTCTCTTTTAATGATGAAGATGAAA 900
                                                                                                                                                                                                                                                                                                                     80 Arecaedeceaccecrecreaccececececererererererereseacececece
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   260 GAGCTGCTCAAGACAGCATCAAACCTCACTGTCTCTGTCCTGGAAGCAGAAGAGTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  320 GAAAAAGCTCTTTTAAGACACTTACTCTTCCATCACTACCTCTGAACAGTGCAGATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCACAACAAAGTGATCTTGGAGTCATTTCCAAAACTTTTCAGCTATCTTCCCATCCAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             680 CTTGGTGACTGGTCTATTCAAGTTCAAGTGAATGACCAGACATATTATCAATGTTTCAG
                                                                                                                                                                                                                                                                                GCCGTGGCTCCCGGGCCTCGGTTTCTGGTGACAGCCCCCAGGGATCATCAGGCCCGGAGGA
                                                                                                                                                                                                                                                                                                                                                                              121 AATGTGACTATTGGGGTGGAGCTTCTGGAACACTGCCCTTCACAGGTGACTGTGAAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                       200 AATGTGACTATTGGGGTGGAGCTTCTGGAACACTGCCCTTCACAGGTGACTGTGTAAAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GADADADAGGCTCTTTTAAGACACTTACTCTTTCCATCACTACCTCTGAACAGTGCAGATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301 ATTIATGAGCTACGTGTAACCGGACGTACCCAGGATGAGATTTTATTCTCTAATAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481 AAAACCTCTTTAAACATTCTCATTAAGGACCCCAAAATCAAATTTGATCCAACAGTGGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTGGTGACTGGTCTATTCAAGTGAATGACCAGACATATTATCAATTTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTTTCAGAATATGTATTACCAAAATTTGAAGTGACTTTGCAGACACCCATTATATTGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           740 GITICAGAATAIGIATIACCAAAATITGAAGIGACTITIGCAGACACCATIATATIGITCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGAATTCTAAGCATTTAAATGGTACCATCACGCCAAAGTATACATATGGGAAGCCAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781 AAAGGAGACGTAACGTTACATTTTTACCTTTATCCTTTTGGGGAAAGAAGAAATATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             860 AAAGGAGACGTPACGTTTTTTACCTTTATCCTTTTGGGGAAAGAAGAAAATATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181 GAGCTGCTCAAGACAGCATCAAACCTCACTGTCTGTCTGGAAGCAGAAGGAGTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421 AAGCCAAAGCAAGAAGTGAAGTTTCGCATTGTTACACTCTTCTCAGATTTTAAGCCTTAC
                                                                                                                                                                                                                                               63; Gaps
                                                                                                                                                                                                         DB 13; Length 1880;
                                                                                                                                                                                                                                               2; Indels
                                                                                                                                                                                                       Query Match
39.4%; Score 1690.8;
Best Local Similarity 96.4%; Pred. No. 0;
Matches 1765; Conservative 0; Mismatches
NUMBER OF SEQ ID NOS: 924
SOFTWARE: pt_FI_genes Version 5.0
SEQ ID NO 160
LENGTH: 1880
                                                                              TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                   ) NAME/KEY: CDS
) LOCATION: (80)..(1867)
US-10-112-944-160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                           19
                                                                                                                   FEATURE
                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                             1560
                                                                                1625
                                                                                                                   1620
                                                                                                                                       GAAATTATAAGTGATGTTCTAAAAATTCCTGTTCAGCTTGTTTTTAAAAATAAGATAAAG 1680
                                                                                                                                                                                                               CTATATTGGAGTAAAGTGAAAGCTGAACCATCTGAGAAAGTCTCTTTAGGATCTCTGTG 1740
                                                                                                                                                                                                                                                                                                                                                                                                                   1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1866 GCCTCTAATGATATTACAATGGAAATGTGGTCCATGAGTTGGAACTTTATAACACAGGA 1925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCGCCTTTTGAGTTGGTGGTTAGTGGCAACAAACGATTGAAGGAGTTAAGCTATATGGTA 1565
                                                                                                                                                                                                                                                                                                        1805
                                                                                                                                                                                                                                                                                                                                           1741 ACACAGCCTGACTCCATAGTTGGGATTGTAGCTGTTGACAAAAGTGTGAATCTGATGAAT 1800
                                                                                                                                                                                                                                                                                                                                                                                1865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATTATTAGGCATGTTCATGAATTCTTTTGCAGTCTTTCAGGAATGTGGACTCTGGGTA 1920
                                                                                                                                                                                                                                                                                          CTATATTGGAGTAAAGTGAAAGCTGAACCTGAGAAAGTCTCTCTTAGGATCTCTGTG
                                                                                                                                                                                                                                                                                                                                                                GTATCCAGGGGACAGTTGGTGGCTGTGTGAGAAACAAAATTCAACAATGTTCTCTTTAACA
                                                                                                                     CCAGAAAATTCTTGGACTCCAAAAGCCTGTGTAATTGTGTATTATATTGAAGATGATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                   GCCTCTAATGATATTACAATGGAAAATGTGGTCCATGAGTTGGAACTTTATAACACAGGA
                                             GTATCCAGGGGACAGTTGGTGGCTGTAGGAAAACAAAATTCAACAATGTTCTCTTTAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Ware, AIGNIE U.
APPLICANT: Wehrman, Tom
APPLICANT: Wehrman, Tom
APPLICANT: Wehrman, Tom
APPLICANT: Wehrman, Tom
APPLICANT: Wehrman, Tom
APPLICANT: Warg, Dunrui
APPLICANT: Warg, Dunrui
APPLICANT: Zhao, Qing A.
APPLICANT: Zhao, Qing A.
APPLICANT: Zhao, Qing A.
TITLE OF INVENTION: Secreted Polypeptides
TITLE OF INVENTION: Secreted Polypeptides
TITLE OF INVENTION: Secreted Polypeptides
CURRENT APPLICATION NUMBER: US/10/112,944
CURRENT APPLICATION NUMBER: US 09/488,725
PRIOR FILING DATE: 2000-01-25
PRIOR FILING DATE: 2000-01-25
PRIOR FILING DATE: 2000-01-25
PRIOR FILING DATE: 2000-02-38
PRIOR APPLICATION NUMBER: US 09/496,914
PRIOR FILING DATE: 2000-02-38
PRIOR APPLICATION NUMBER: US 09/519,705
PRIOR PILING DATE: 2000-03-31
PRIOR APPLICATION NUMBER: US 09/540,217
PRIOR APPLICATION NUMBER: US 09/552,929
PRIOR PILING DATE: 2000-03-31
PRIOR PILING DATE: 2000-03-31
PRIOR PILING DATE: 2000-03-31
PRIOR PILING DATE: 2000-03-31
PRIOR PILING DATE: 2000-03-31
PRIOR PILING DATE: 2000-03-18
PRIOR PILING DATE: 2000-03-18
PRIOR FILING DATE: 2000-03-18
PRIOR PILING DATE: 2000-03-18
PRIOR FILING DATE: 2000-03-18
PRIOR FILING DATE: 2000-03-18
PRIOR FILING DATE: 2000-03-18
PRIOR FILING DATE: 2000-03-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 160, Application US/10112944 Publication No. US20040048249A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Tang, Y. Tom
APPLICANT: Yang, Yonghong
APPLICANT: Yang, Yonghong
APPLICANT: Anng, Jie
APPLICANT: Ren, Feiyan
APPLICANT: Wang, Jian-Rui
APPLICANT: Wang, Jian-Rui
APPLICANT: Wehrman, Tonghong Jian-Rui
APPLICANT: Wehrman, Tanghika
APPLICANT: Wehrman, Tanghika
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JS-10-112-944-160
                                                                                                                                                        1626
                                                                                                                                                                                                                                 1686
                                                                                                                                                                                                                                                                    1681
         1506
                                             1501
                                                                                1566
                                                                                                                     1561
                                                                                                                                                                                              1621
                                                                                                                                                                                                                                                                                                          1746
                                                                                                                                                                                                                                                                                                                                                                                1806
                                                                                                                                                                                                                                                                                                                                                                                                                     1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1921
                                         ð
                                                                            DP
                                                                                                                   8 8
                                                                                                                                                                                  ò
                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                        Db
                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
```

360

439

300 379 420

499

480

559

540 619 600 619 999 739 720 799 780 840 919

us-10-020-095-3.rnpb

Antibodies

and

Proteins,

Page

```
TITLE OF INVENTION: Nucleic Acids, Proteins,
FILE REFERENCE: PA11PI
CURRENT APPLICATION NUMBER: US/10/264,237
CURRENT FILING DATE: 2002-10-04
PRIOR APPLICATION NUMBER: PCT/US01/16450
PRIOR PLING DATE: 2001-05-18
PRIOR PLING DATE: 2001-05-18
PRIOR PELING DATE: 2001-05-19
NUMBER OF SEQ ID NOS: 2876
SOFTWARE: Patentin Ver. 3.1
SEQ ID NO 1040
LENGTH: 1448
TYPE: DATE HOMO SADIENS
US-10-264-237-1040
                                                                                                                                                                                                                                                                                                    1440
                                                                                                                                                                                                                                                                                                                                                                        1560
                                                                                                                                                                                                                                                                                                                                                                                                        ACACAGCCTGACTCCATAGTTGGGATTGTAGCTGTTGACAAAAGTGTGAATCTGATGAAT 1800
                                                                                                                          1140
                                                                                                                                           1219
                                                                                                                                                           1200
                                                                                                                                                                                                                                                                  1380
                                                                                                                                                                                                                                                                                  1459
                                                                                                                                                                                                                                                                                                                     1512
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1080
                                                                                                                                                                      ACTCTTGAAGAAAGAAAGAAATAATGTAGTCATAACAGTGACACAGAGAAACTATACTGAG 1279.
                                                                                                                                                                                                        1039
                                                      1020
                                                                      1099
                                                                                                         1159
                                                                                                                                                                                              1441 TCGCCTTTTGAGTTGGTGGTTAGTGGCAACAAACGATTGAAGGAGTTAAGCTATATGGTA 1500
    979
                     960
                                                                                                                                                                                                                                                                                                            CTATATTGGAGTAAAGTGAAAGCTGAACCATCTGAGAAAGTCTCTCTTAAGATCTCTCTGTG
                                                                                                                                                                                                                                                                                                                                                        ------GGTA
                                                                                                                                                                                                                                                                                                                                                                        GTATCCAGGGGACAGTTGGTGGCTGTAGGAAAACAAAATTCAACAATGTTCTCTTTAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAATTATAAGTGATGTTCTAAAAATTCCTGTTCAGCTTGTTTTTAAAATAAGATAAG
                                                                                                                         CTATATTGGAGTAAAGTGAAAGCTGAACCATCTGAGAAAGTCTCTTTAGGATCTCTGTG
                     ACTCTTGAAGAAAGAAGAAATAATGTAGTCATAACAGTGACACAGAGAAACTATACTGAG
                                                                                                                                                                                                                                                                                                    AAGTCTCCTAGTAAGACATACATCCAACTAAAACAAGGAGGATGAAATATAAAGGTGGGA
    920 ACAAAAACATITAAGATAAATGGATCTGCAAACTTCTCTTTTAATGATGAAGAGATGAAA
                                                                                        AATGTGTTCTTCAAGCAACATGATTACATCATTGAGTTTTTTGATTATACTACTGTCTTG
                                                      GTAGAAATTTTAACCACAGTGACAGAATCAGTTACAGGTATTTCAAGAAATGTAAGCACT
                                                               GCCTCTAATGATATTACAATGGAAAATGTG 1830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCTCTAATGATATTACAATGGAAAATGTG 1846
                                                                                                                                                                                                                                                                                                                                                         -----
                                     980
                                                                                                         1100
                                                                                                                                                                              1220
                                                                                                                                                                                                                1280
                                                                                                                                                                                                                                                  1340
                                                                                                                                                                                                                                                                                    1400
                                                                                                                                                                                                                                                                                                                      1460
                                                                                                                                                                                                                                                                                                                                                                          1501
                                                                                                                                                                                                                                                                                                                                                                                          1517
                                                                                                                                                                                                                                                                                                                                                                                                           1561
                                                                                                                                                                                                                                                                                                                                                                                                                            1577
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1817
                                                                                         1021
                                                                                                                                                             1141
                                                                                                                                                                                               1201
                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                     1381
                                                                                                                                                                                                                                                                                                                                                        1513
                                                                                                                                                                                                                                                                                                                                                                                                                                              1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1801
                                                       196
                      901
                                                                                                                                                                                                                                                                                                                                                                      25 B S5
                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                 8 6
                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8
                                                                                                                                        QQ
                                                                                                                                                           8 8
                                                                                                                                                                                             8 6
                                                                                                                                                                                                                               \overset{\sim}{\circ}
                                                                                                                                                                                                                                                                  \delta
                                                                                                                                                                                                                                                                                                                                 \dot{\circ}
    8 B
                                    g
                                                  ò
                                                                   셤
                                                                                       රු පු
                                                                                                                     ∂
```

3389

180

3270

δ

61

엄 à g à

GCTGACTTGGAGAGAGAACAAGAAGGTGGCATGCAATTCTGGCTGTCATCAGAGTCCAA

9

Gaps

51;

Indels

Score 1017; DB 16; Pred. No. 1.6e-255; 0; Mismatches 0;

Query Match
Best Local Similarity 95.5%;
Matches 1078; Conservative C

3210 М

δ

g

Length 1448;

3449

240

3390 181

3330

3509

3569

360

300

CTCACACTICTTACAATTTCAGACTTCTGAGGGAATCCCAATTATGAGGTGGCTAAGGAG

241

3450

음 장 임

3510 301 3570

S G S

GCAAAGAAATAGCTTGGGTGGTTTTGCATCTACTCAGGATACCACTGTGGCTTTAAAGGC GCAAAGAAATAGCTTGGGGGGGTTTTGCATCTACTCAGGATACCACTGTGGCTTTAAAGGC

CTCACACTTCTTACAATTTCAGACTTCTGAGGGAATCCCAATTATGAGGTGGCTAAGCAG

3629

420

3651

480

```
AATTTCTCTGAGCGAGACAGTGAAAGTGGAATATGATCATGGAAAACTCAACCTCTA 3998
AGACGAAGATCTATCCAAAATCAAGAAGCCTTTGATTTAGATGTTGCTGTGTAAAAGAAAA
                                                                                                                                                                                                               GGGGCCTAGCTCACCAAGTCCT-------GGGGCCTAGCTAGAGGTTGACACACACACACACAACGCTTACTCCT
                                                                                                                      TGGATTTGCTATTTGTCAGCTCAATGTTGTATATATGTGAAGGCTTCTGGGTCTTCTAG
                                                                                                                               AAGACGAAGATCTATCCAAAATCAAGAAGCCTTTGATTTAGATGTTGCTGTAAAAGAAAA
                                                                                                                                                                                                  TARAGATGATCTCAATCATGTGGATTTGAATGTGTGTACAAGCTTTTCGGGCCCGGGTAG
                                                                                                                                                                                                                                        GAGTGGCATGGCTCTTATGGAAGTTAACCTATTAAGTGGCTTTATGGTGCCTTCAGAAGC
                                                                                                                                                                                                                                                   3819
                                          3630
                                                                                                                                                              3759
                                                                                                                                                                                                                                          3879
                       361
                                                                                 3652
                                                                                                   481
                                                                                                                       8698
                                                                                                                                           541
                                                                                                                                                                                601
                                                             421
                                                                                                                                                          8 8
                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                à
               음 상 음
                                                                          8
                                                                                               유 상 유
                                                                                                                                                                                                                                   RESULT 4
US-10-264-237-1040
; Sequence 1040, Application US/10264237
; Publication No. US20040009491A1
; GENERAL INFORMATION:
; APPLICANT: Birse et al.
```

3758

540

009

3698

3818

099

3878

720

3938

780

ω

ठे 유 S S S 8 q 8 8

ઠે 엄

```
1155 TGGCTAAGCAGGCAAAGAATAGCTTGGGTGGTTTTGCATCTACTCAGGATACCACTGTG 1096
                                                                                                                                                                                                                                                                                                             3745
                                                                                                                                                                                                                                                                                                                                                                                                  3805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4282
                                                                                                                                                                                                                                                                                                                                                      856
                                                                                                                                                                                                                                                                                                                                                                                                                                           796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             496
                                                  GCTTTAAAGGCTCTGTCTGAATTTGCAGCCCTAATGAATACAGAAAGGACAAATATCCAA
                                                                         GCTTTAAAGGCTCTGTCTGAATTTGCAGCCCTAATGAATACAGAAAGGACAAATATGCAA
                                                                                                                                                                       CTGGGTCTTCTAGAAGACGAAGATCTATCCAAAATCAAGAAGCCTTTGATTTAGATGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                           CTGGGTCTTCTAGAAGACGAAGATCTATCCAAAAATCAAGAAGCCTTTGATTTAGATGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     735 CGGCCCGGGTAGGAGTGGCATGGCTCTTATGGAAGTTAACCTATTAAGTGGCTTTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      675 TGCCTTCAGAAGCAATTTCTCTCTGAGCGAGACAGTGAAAGTGGAAAATTGATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4046 IGAGAAACTITAAAGTITICAAAIACCCAAGAIGCTICAGIGTGCAIAGIGGAITACIAIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACTOTTO -- AGTOATTTTTATTTTCTGTTTCAAGCTTCTGTACTTTATGGAACTTTGGC
                                                                                                                                                                                                                                                                   975 CGCTTACTCCTTCAGACAGCAGCCTTGCTGATGGTACAGCCAATGGCAGTGTAATTTT
                                                                                                                                                                                                                                                                                                                                      915 CCGCAAATGGTTTTGGATTTGCTATTTGTCAGCTCAATGTTGTATATAATGTGAAGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGTAAAAGAAATAAAGATGATCTCAATCATGTGGATTTGAATGTGTGTACAAGCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  795 CIGTAAAAGAAAATAAAGATGATCTCAATCATCGTGGGATTTGAATGTGTGTACAAGCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGGGCCCGGGTAGGATGGCATGGTATGGAAGTTAACCTATTAAGTGGCTTTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3926 TGCCTTCAGAAGCAATTTCTCTGAGGGAGACAGTGAAGAAAGTGGAATATGATCATGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               615 AACTCAACCTCTATTTAGATTCTGTAAATGAAACCCAGTTTTGTGTTAATATTCCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     495 AGCCAAGGAGACAGGCGGTGAGAAGTTACAACTCTGAAGTGAAGTGTCCTCTGTGAACTGTACAAGCTGTCCTGTGAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTTGCAGTGATGTCCAG-GGCTGCCGTCCTTGTGAGGATGGAGCTTCAGGCTCCCATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITICAGIGATGICCAGAGGCTGCCGTCCTTGIGAGGATGGAGCTTCAGGCTCCCATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cacrerregagregarritrarritregerricaagerrergracitrarggaacrirege
                                                                                                                                                                                                                            --CTTGCTGTGGTACAGCCAATGGCAGT-TAATATTT
                                                                                                                                                                                                                                                                                                               CCGCAAATGGTTTTGGATTTGCTATTTGTCAGCTCAATGTTGTATATATGTGAAGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3986 AACTCCAACCTCTATTTAGATTCTGTAAATGAAACCCAGTTTTGTGTTAATATTCCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                555 TGAGAAACTTTAAAGTTTCAAATACCCAAGATGCTTCAGTGTCCATAGTGGATTACTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCCAAGGAGACAGGCGGTGAGAAGTTACAACTCTGAAGTGAAGCTGTCCTCCTGTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 223, Application US/10133013
| Publication No. US20030166903A1
| GENERAL INFORMATION:
| APPLICANT: Bandman, Olga
| APPLICANT: Bandman, Olga
| APPLICANT: Bandman, Olga
| TILLE REFERENCE: Part SASOCIATED WITH VASCULAR DISEASE
| FILE REFERENCE: PA-0049 US
| CURRENT APPLICATION NUMBER: US/10/133,013
| CURRENT FILING DATE: 2002-04-25
| PRIOR FILING DATE: 2001-04-27
                                                                                                                                     3619 GIGACCGIGACGGGCCTAGCICACCAAGICCI-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTGA 4287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTGA 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
US-10-133-013-223
                                                3559
                                                                                           1095
                                                                                                                                                                                                                          3652
                                                                                                                                                                                                                                                                                                                                                                                                  3746
                                                                                                                                                                                                                                                                                                                                                                                                                                             855 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4106
                                                                                                                                                                                                                                                                                                               3686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             375
                                           ò
                                                                                     셤
                                                                                                                                \dot{\delta}
                                                                                                                                                                     임
                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                                                 임
                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 601, Application US/10276774
; Sequence 601, Application US/10276774
; Publication No. US20040053245A1
; Publication No. US20040053245A1
; Publication No. US20040053245A1
; APPLICANT: Hyseq, Inc.
; APPLICANT: Tang, Y, Tom et al
; TILE OF INVENTION: No. US20040053245A1e1 Nucleic Acids and Polypeptides
; TILE REFERENCE: 21272-030
; CURRENT APPLICATION NUMBER: 08/10/276,774
CURRENT FILING DATE: 2000-04-27
; PRIOR FILING DATE: 2000-04-27
; PRIOR FILING DATE: 2000-02-03
; NUMBER: OF SEQ ID NOS: 2700
; SOFTWARE: Custom
; SEQ ID NO 601
; LENGTH: 1459
                                                                       4058
                                                                                                                                                            4118
                                                                                                                                                                                                                                                                   CCAGGGCTGCCGTCCTTGTGAGGATGGAGCTTCAGGCTCCCATCATCACCTCTTCAGTCAT 4238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1156
                                                                                                                                                                                                                                               GGCGGTGAGAAGTTACAACTCTGAAGTGAAGCTGTCCTCCTGTGACCTTTGCAGTGATGT 4178
                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGCTAAGCAGGCAAAGAATAGCTTGGGTGGTTTTGCATCTACTGGATACCACTGTG 3558
                                                                                                                900
                                                                                                                                                                                                 AGTITCAAATACCCAAGATGCTTCAGTGTCCATAGTGGATTACTATGAGCCAAGGAGACA 960
TITAGATICIGIAAAIGAAACCCAGITITIGIGITAATATITCCIGCTGTGAGAAACTITAA
                                                                                                              841 TTFAGATTCTGTAAATGAAACCCAGTTTTGTGTTAATATTCCTGCTGTGAGAAACTTTAA
                                                                                                                                                                                                                                                                                                                                                             1021 CCAGGGCTGCCGTCCTTGTGAGGATGGAGCTTCAGGCTCCCATCATCACTCTTCAGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TATGCACTGCTCTCACACTTCTTACAATTTCAGACTTCTGAGGGAATCCCAATTATGAGG
                                                                                                                                                       1059 AGTITCAAATACCCAAGAIGCTTCAGIGICCATAGIGGATTACTAIGAGCCAAGGAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1395 TATACTCTAGCCCTTATAACTTATGCATTGTCATCAGTGGGGAGTCCTAAAGCGAAGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1275 TCAGAGTCCAAACTTTCTGACTCCTGGCAGCCACGCTCCTGGATATTGAAGTTGCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1455 GAGGTGCAAGAGTCTATCCATTTTTTGGAGTCTGAATTCAGTAGAGGAATTTCAGACAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGAGTCCAAACTTTCTGACTCCTGGCAGCCACGCTCCCTGGATATTGAAGTTGCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3199 GATGTGCAAGAGTCTATCCATTTTTTGGAGTCTGAATTCAGTAGAGGAATTTCAGACAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TATACTCTAGCCCTTATAACTTATGCATTGTCATCAGGGGAGTCCTAAAGCGAAGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTTTGAATATGCTGACTTGGAGAGCAGAACAAGAAGGTGGCATGCAATTCTGGGTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1335 GCTTTGAATATGCTGACTTGGAGGGGGAGACAAGAAGGTGGCATGCAATTCTGGGTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                      TITIATITICTGTTTCAAGCTTCTGTACTTTATGGAACTTTGGCTGTGA 4287
                                                                                                                                                                                                                                                                                                                                                                                                                                             1081 TITIATITICIGITICAAGCTICIGIACTITAIGGAACTITGGCTGTGA 1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 22.8%; Score 975.4; DB 13; Length 1459; Best Local Similarity 94.1%; Pred. No. 1.3e-244; Matches 1078; Conservative 0; Mismatches 11; Indels 56;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CRGANISM: Homo sapiens US-10-276-774-601
                                                                    3999
                                                                                                                                                                                                                                                                                                                                                                                                                      4239
                         781
                                                                                                                                                                                                   901
                                                                                                                                                                                                                                               4119
                                                                                                                                                                                                                                                                                        196
                                                                                                                                                                                                                                                                                                                                 4179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3499
```

d à d à g δ Dp ò

```
839 TIAIGGAACTIIGGCIGIGA 858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4027
                                                                                                                                                                                                                    3538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGTGTACAAGCTTTTCGGGCCCCGGGTAGGAGTGGCATGGCTCTTATGGAAGTTAACC 3907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCATAGTGGATTACTATGAGCCAAGGAGACAGGCGGTGAGAAGTTACAACTCTGAAGTGA 4147
                                                                                                                                                                                     2
                                                                                                                                                                                                                                                                           CTACTCAGGATACCACTGTGGCTTTAAAGGCTCTGTCTGAATTTGCAGCCCTAATGAATA 3598
                                                                                                                                                                                                                                                                                                                                                                                            ----CTTGCTGTGGTACAGC 3667
                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAATGGCAGTTAATATTTCCGCAAATGGTTTTGGATTTGCTATTTGTCAGCTCAATGTTG 3727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATATAATGTGAAGGCTTCTGGGTCTTCTAGAAGACGAAGATCTATCCAAAATCAAGAAG 3787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTTTGATTTAGATGTTGCTGTAAAAGAAATAAAGATGATCTCAATCATGTGGATTTGA 3847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATTAAGTGGCTTTATGGTGCCTTCAGAAGCAATTTCTCTGAGGGAGACAGTGAAGAAAG 3967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1148 AGCTGTCCTCTGTGACCTTTGCAGTGATGTCCAGGGCTGCCGTCCTTGTGAGGATGGAG 4207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGTGTGTACAAGCTTTTCGGGCCCGGGTAGGAGTGGCATGGCTCTTATGGAAGTTAACC 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         838
                                                                                                                                                                                                                                                                                                                                                                                                                      238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTTTGATTTAGATGTTGCTGTAAAGAAATAAAGATGATCTCAATCATGTGGATTTGA 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       539 regaararcarceaacarcrcaaccrcrarrragarrcreraarcaaacccaerrr 598
                                                                                                                                                                                                                                                                                                     61 CTACTCAGGATACCACTGTGGCTTTAAAGG--CTGTCTGAATTTGCAGCCCTAATGAATA 118
                                                                                                                                                                                                                                                                                                                                                 119 CAGAAAGGACAAATATCCAAGTGACCGTGACGGGGCCTAGCTCACCAAGTCCTGTAAAGT 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             239 CAACGGCAGTTAATATTTCCGCAAATGGTTTTGGATTTGCTATTTGTCAGCTCAATGTTG 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATATATATGTGAAGGCTTCTGGGTCTTCTAGAAGACGAAGATCTATCCAAAATCAAGAAG 358
                                                                                                                                                                                                                                              09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCTGTCCTCTGTGACCTTTGCAGTGATGTCCAGGGCTGCCGTCCTTGTGAGGATGGAG
                                                                                                                                                                                                                                              1 AGGGAATCCCAATTATGAGGCGGCTAAGCAAGGAAATAGCTTGGGTGGTTTTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                      179 TTCTGATTGACACACACACGCTTACTCCTTCAGACAGCAGAGCTTGCTGTGGTACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TATTAAGTGGCTTTATGGTGCCTTCAGAAGCAATTTCTTCTGAGCGAGACAGTGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCATAGTIGGATTACTATGAGCCAAGGAGACAGGCGCTGAGAAGTTACAACTCTGAAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cricaggerecearcacerreagrearingianing
                                                                                                                                                                                                                                                                                                                                    3599 CAGAAAGGACAAATATCCAAGTGACCGTGACGGGGCCTAGCTCACCAAGTCCT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGAATATGATCATGGAAAACTCAACCTCTATTTAGATTCTGTAAATGAAACCCAGTTTT
                                                                                                                                                                                       Gaps
                                                                                                                                                                                     53;
                                                                                                                                                           Length 1300;
                                                                                                 NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No. US20030166903A1 3658034CB1
US-10-133-013-223
                                                                                                                                                        Query Match
Best Local Similarity 93.6%; Pred. No. 2e-180;
Matches 805; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                   3479 AGGGAATCCCAATTATGAGGTGGCTAAGCAGGCAAAGAAATAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTATGGAACTTTGGCTGTGA 4287
NUMBER OF SEQ ID NOS: 271
SOFTWARE: PERL Program
SEQ ID NO 223
                                                          TYPE: DNA
ORGANISM: Homo sapiens
                                          LENGTH: 1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4088
                                                                                                                                                                                                                                                                           3539
                                                                                                                                                                                                                                                                                                                                                                                                                                                     3668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4268
                                                                                                                                                                                                                                                                                                                                                                                            3652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          179
                                                                                     FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                              원
                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                   Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
APPLICANT: Ruben et al.
TITLE OF INVENTION: 83 Human Secreted Proteins
FILIE REFERENCE: P2012P1
FILIE REFERENCE: P2012P1
CURRENT APPLICATION NUMBER: US/09/820,649
CURRENT FILING DATE: 2001-03-30
PRIOR PELICATION NUMBER: US/09/236,557
PRIOR FILING DATE: 1995-01-26
PRIOR FILING DATE: 1995-07-30
PRIOR FILING DATE: 1997-07-30
PRIOR PLICATION NUMBER: 60/054,218
PRIOR PLICATION NUMBER: 60/054,218
PRIOR PLICATION NUMBER: 60/054,218
PRIOR PLICATION NUMBER: 60/054,216
PRIOR PLICATION NUMBER: 60/054,216
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PLING DATE: 1997-07-30
PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        135 CGGCCCGGGTAGGAGGGCGTGTATGGAAGTTAAACCTATTAAGTGGCTTTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       255 AACTCAACTCTATTTAGATTCTGTAAATGAAACCCAGTTTTGTGTTAATATTCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3866 CGGGCCCGGGTAGGAGTGGCATGGCTCTTATGGAAGTTAACCTATTAAGTGGCTTTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCTTCAGAAGCAATTTCTCTGAGCGAGACAGTGAAGAAAGTGGAATATGATCATGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    195 TGCCTTCAGAAGCAATTTCTCTGAGCGAGACAGTGAAGAAAGTGGAATATGATCATGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1046 TGAGAAACTTTAAAGTTTCAAATACCCAAGATGCTTCAGTGTCCATAGTGGATTACTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                315 TGAGAAACTTTAAAGTTTCAAATACCCAAGATGCTTCAGTGTCCATAGTGGATTACTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3746 CTGGGTCTTCTAGAAGACGAAGATCTATCCAAAATCAAGAAGCCTTTGATTTAGATGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 credeficircragaaeaceaaearcrarccaaaarcaaeaeccrrrearraaareare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGTAAAAGAAAATAAAGATGATCTCAATGTGGATTTTGAATGTGTACAAGCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      75 creraaaagaaaaraaagargarcreaarcareregarrreaarererereraagerrrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AACTCAACCICIATITAGATICIGIAAATGAAACCCCAGITITGIGITAATATICCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 875;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12.6%; Score 541.6; DB 10 99.8%; Pred. No. 6.8e-131; ive 1; Mismatches 0;
Sequence 48, Application US/09820649 Publication No. US20030199683A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity ....
Matches 541; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
CORGANISM: Homo sapiens
US-09-820-649-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
```

3805

74

ö

3865

134

3925

4045

314

3985

254

194

4105

374

4165

434

```
JOHNSTON INCOMENTION:
JAPPLICANT: MALTAY, Richard
JAPPLICANT: Glynne, Richard
JAPPLICANT: Glynne, Richard
JAPPLICANT: Glynne, Richard
JAPPLICANT: Matson, Susan R.
JAPPLICANT: Bas Go, Susan R.
JAPPLICANT: Bos Biotechnology, Inc.
JAPPLICANT: Bos Biotechnology, Inc.
JAPPLICANT: Bos Biotechnology, Inc.
JAPPLICANT: Bos Biotechnology, Inc.
JAPPLICANT: Bos Biotechnology, Inc.
JAPPLICANT: Bos Biotechnology, Inc.
JAPPLICANTION: Methods of Exceening for Angiogenesis, Modulators
JAPPLICANTION: MUMBER: 2003-02-13
JAPPLICANTION: NUMBER: US 09/784,356
JAPPLICANTION: NUMBER: US 09/791,390
JAPPLICANTION: NUMBER: US 09/791,390
JAPPLICANTION: NUMBER: US 60/310,025
JAPPLICANTION: NUMBER: US 60/314,244
JAPPLICANTON: WUMBER: US 60/314,244
JAPPLICANTON: WUMBER: US 60/314,244
                                                                                                                                                                                                                                                                                                                                                                                                            3925
                                                                                                                                                                                                                  3805
                                                                                                                                                                                                                                                                                                                3865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4285
                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   314
                                                                                                                                                                                                                                                                                                                                                                                                                                                         194
                                                                                                                                                                                                                                                                                                                                                            134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        554
                                                                                                                                                                                                                                                              74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   195 TGCCTTCAGAAGCAATTTCTCTGAGCGAGACAGTGAAGAAAGTGGAATATGATCATGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4106 AGCCAAGGAGACAGGCGGTGAGAGTTACAACTCTGAAGTGAAGCTGTCCTCTGTGACC
                                                                                                                                                                                                                  3746 CIGGGICTICTAGAAGACGAAGAICTAICCAAAATCAAGAAGCCITIGATITAGAIGTIG
                                                                                                                                                                                                                                                              15 cresercirciaeaaeaeeaaaarcrarccaaaarcaaeaecrirearrragarerre
                                                                                                                                                                                                                                                                                                                3806 CTGTAAAAGAAAATAAAGATGATCTCAATCATGTGGATTTGAATGTGTGCAAAGCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                             255 AACTCAACCTCTATTTAGATTCTGTAAATGAAACCCAGTTTTGTGTTAATATTCCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4046 TGAGAAACTTTAAAGTTTCAAATACCCAAGATGCTTCAGTGTCCATAGTGGATTACTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               435 TITGCAGTGATCTCCAGGGCTGCCCTCTGTGAGGATGGAGCTTCAGGCTCCCATCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4226 ACTOTTCAGTCATTTTTATTTTCTGTTTCAAGCTTCTGTACTTTATGGAACTTTGGCTGT
                                                                                                                                                                                                                                                                                                                                       3866 CGGGCCCGGGTAGGAGTGGCATGGCTCTTATGGAAGTTAACCTATTAAGTGGCTTTTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3926 IGCCTTCAGAAGCAATTTCTCTGAGCGAGACAGTGAAGAAGATGGAATATGATCATGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3986 AACTCAACCTCTATTTAGATTCTGTAAATGAAACCCAGTTTTGTGTTAATATTCCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          375 AGCCAAGGAGACAGGCGGTGAGAAGTTACAACTCTGAAGTGAAGCTGTCCTCTGTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4166 TITGCAGTGTCCAGGCCTGCCGTCCTTGTGAGGATGGAGCTTCAGGCTCCCATCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                     ..
0
                                                                                                                  12.6%; Score 541.6; DB 15; Length 875; 99.8%; Pred. No. 6.8e-131; Live 1; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 208, Application US/10211462 Publication No. US20040033495A1 GENERAL INFORMATION:
                                                                                                                    Query Match
Best Local Similarity 99.84
Matches 541; Conservative
; LENGTH: 875
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-160-162-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1286 GA 4287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GA 556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 9
US-10-211-462-208
                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                            임
                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                    4226 ACTCTTCAGTCATTTTTATTTTCTGTTTCAGCTTCTGTACTTTATGGAACTTTGGCTGT 4285
                           4166 TTTGCAGTGATGTCCAGGGCTGCCGTCCTTGTGAGGATGGAGCTTCAGGCTCCCATCATC 4225
                                                       435 TITGCAGTGATGTCCAGGGCTGCCGTCCTTGTGAGGATGGAGCTTCAGGCTCCCATCATC 494
                                                                                                                                              APPLICANT: Ruben et al.
TITLE OF INVENTION: 83 Human Secreted Proteins
FILES PERENGE: 8001222
CURRENT PELING DATE: 2002-06-04
PRIOR APPLICATION NUMBER: 08/10/160,162
CURRENT PELING DATE: 2001-06-05
PRIOR APPLICATION NUMBER: 09/236,557
PRIOR FILING DATE: 1999-01-26
PRIOR PELING DATE: 1999-01-26
PRIOR FILING DATE: 1999-01-26
PRIOR FILING DATE: 1999-07-30
PRIOR FILING DATE: 1999-07-30
PRIOR PELING DATE: 1999-07-30
PRIOR APPLICATION NUMBER: 60/054,212
PRIOR APPLICATION NUMBER: 60/054,218
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR APPLICATION NUMBER: 60/054,217
PRIOR APPLICATION NUMBER: 60/054,217
PRIOR APPLICATION NUMBER: 60/054,217
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-07-30
PRIOR PELING DATE: 1997-08-18
PRIOR PELING DATE: 1997-08-18
PRIOR PELING DATE: 1997-08-18
PRIOR PELING DATE: 1997-08-18
PRIOR PELING DATE: 1997-08-18
PRIOR PELING DATE: 1997-08-19
PRIOR PELING DATE: 1997-08-19
PRIOR PELING DATE: 1997-08-19
PRIOR PELING DATE: 1997-08-19
PRIOR PELING DATE: 1997-08-19
PRIOR PELING DATE: 1997-08-19
PRIOR PELING DATE: 1997-08-19
PRIOR PELING DATE: 1997-08-19
PRIOR PELING DATE: 1997-08-19
PRIOR PELING DATE: 1997-08-19
PRIOR PELING DATE: 1997-08-19
PRIOR PELING DATE: 1997-08-19
PRIOR APPLICATION NUMBER: 60/056,534
PRIOR APPLICATION NUMBER: 60/056,534
PRIOR PELING DATE: 1997-08-19
PRIOR PELING DATE: 1997-08-19
PRIOR PELING DATE: 1997-08-19
PRIOR PELING DATE: 1997-08-19
PRIOR PELING DATE: 1997-08-19
PRIOR PELING DATE: 1997-08-19
                                                                                                                                                                                                                                                                                                                                                              S-10-160-162-48
Sequence 48, Application US/10160162
Publication No. US20030166541A1
GENERAL INFORMATION:
                                                                                                                                                                                                                     GA 4287
                                                                                                                                                                                                                                                                   GA 556
                                                                                                                                                                                                                     4286
                                                                  g
                                                                                                                                                                                                        8
                                                                                                                       ò
                                                                                                                                                          g
                                                                                                                                                                                                                                                        셤
```

```
ઠે
                                                                                                                                                                    d
                                                                                                                                                                                                    ò
                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                           음
                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10

US-10-085-783A-45412

Sequence 45412, Application US/10085783A

Publication No. US20040037841A1

GENERAL INFORMATION:

APPLICANT: Chondrodene Inc.

TILLE OF INVENTION: Compositions and Methods Relating to Osteoarthritis

FILE REFERENCE 4231/2002

CURRENT APPLICATION NUMBER: US/10/085,783A

CURRENT PILING DATE: 2002-02-28

PRIOR APPLICATION NUMBER: US 60/305,340

PRIOR PILING DATE: 2001-07-13

PRIOR FILING DATE: 2001-07-13

PRIOR FILING DATE: 2001-03-12

PRIOR FILING DATE: 2001-03-12

PRIOR FILING DATE: 2001-03-28

NUMBER OF SEQ ID NOS: 58994

SOFTWARE: PATENTIN VERSION 3.2

LENGTH: 520
                                                                                                                                                                                                                                                     3882
                                                                                                                                                                                                                                                                                                                    GGCATGGCTCTTATGGAGTTAACCTATTAAGTGGCTTTATGGTGCCTTCAGAAGCAATT 3942
                                                                                                                                                                                                                                                                                                                                                                                                                                                GATICIGIAAAIGAAACCCCAGIIIIGIGIIAAIAIIICCIGCIGIGAGAAACIIIAAAGII 4062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAAATACCCAAGATGCTTCAGTGTCCATAGTGGATTACTATGAGCCAAGGAGACAGGCG 4122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGAGAAGTTACAACTCTGAAGTGAAGCTGTCCTCTGTGACCTTTGCAGTGATGTCCAG 4182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCTGCCGTCCTTGTGAGGATGGAGCTTCAGGCTCCCATCACCATCTTCAGTCATTTTT 4242
                                                                                                                                                                                                                                                                                                                                                                                   TCTCTGAGGGAGACAGTGAAGAAAGTGGAATATGATCATGGAAAACTCAACCTCTATTTA 4002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301 rchantaccchagargcrrchgrgrcchingrgrgrariacrargagcchaggagagachggcg 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361 GTGAGAAGTTACAACTCTGAAGTGAAGTGTCCTCCTGTGACCTTTGCAGTGATGTCCCG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                         TCTCTGAGCGAGACAGTGAAGAAGTGGAATATGATCATGGAAAACTCAACCTCTATTTA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTGCCTCCTTGTGAGGATGGAGCTTCAGGCTCCCATCATCATCACTCTTCAGTCATTTT
                                                                                                                                                                                        3763 CGAAGATCTATCCAAAATCAAGAAGCCTTTGATTTAGATGTTGCTGTAAAAGAAAATAAA
                                                                                                                                                                                                            GATGATCTCAATCATGTGGATTTGAATGTGTGTACAAGCTTTTCGGGCCCGGGTAGGAGT
                                                                                                                                                           ö
                                                                                                                           Length 821;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4243 ATTITCIGITICAAGCITCIGIACITIAIGGAACTITGGCIGIGA 4287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTITCIGITICAGCITCTGTACTTTATGGAACTTTGGCTGTGA 525
                                                                                                                         12.2%; Score 525; DB 13; L
100.0%; Pred. No. 1.5e-126;
live 0; Mismatches 0;
                                                                                                                                         Best Local Similarity 100.
Matches 525; Conservative
NUMBER OF SEQ ID NOS: 230
SOFTWARE: Patentin Ver. 2.1
                                                            TYPE: DNA
CORGANISM: Homo sapiens
US-10-211-462-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TYPE: DNA
; ORGANISM: Human
US-10-085-783A-45412
                            SEQ ID NO 208
                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                       3823
                                                                                                                                                                                                                                                                                                                    3883
                                                                                                                                                                                                                                                                                                                                                                                   3943
                                                                                                                                                                                                                                                                                                                                                                                                                                                   4003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4183
                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                           Query Match
                                               LENGTH:
                                                                                                                                                                                                                                                                                                                                             Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                     \stackrel{\circ}{\circ}
                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                   \overset{\sim}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
```

```
Sequence 45412.

Sequence 45412.

Sequence 45412.

Sequence 45412.

Publication No. US20040013663A1

GENERAL INFORMATION:

APPLICANT: Chondrodene Inc.

APPLICANT: Chondrodene Inc.

TITLE OF INVENTION: Compositions and Methods Relating to Osteoarthritis

TITLE OF INVENTION: Compositions and Methods Relating to Osteoarthritis

FILE REPRENCE: 4211/2005

CURRENT FILING DATE: 2002-09-12

PRIOR PPLICATION NUMBER: US 10/085,783

PRIOR PPLICATION NUMBER: US 60/305,340

PRIOR FILING DATE: 2001-07-13

PRIOR FILING DATE: 2001-07-13

PRIOR FILING DATE: 2001-07-13

PRIOR FILING DATE: 2001-07-28

PRIOR FILING DATE: 2001-07-28

NUMBER OF SEQ ID NOS: 58994

SOFTWARE: PatentIn version 3.2

FROUTH ON 45412
                                                                                                                                                                                             2990
                                                                                                                                                                                                                                                                                           3050
                                                                                                                                                                                                                                                                                                                                                                                       3110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCAGTGGGGAGTCCTAAAGCGAAGGTTTGAATATGCTGACTTGGAGAGCAGAACA 3350
                                                   ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGAATTCAGTAGAGGAATTTCAGACAATTATACTCTAGCCCTTATAACTTATGCATTGTC 3290
                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCAGTGGGGAGTCCTAAAGCGAAGGAAGCTTTGAATATGCTGACTTGGAGAGCAGAACA 480
                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                           181 TAAAGGACATCAGAAATCCAACGGTGAATTTTGGGATCCAGGAAGAGTGATTCATAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301 GGGATATAGAAAGTATCAGCCTAACATTGATGTGCAAGAGTCTATCCATTTTTTGGAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGAAGCCGATCCTTACATAGATATTGATCAGAATGTGTTACACAGAACATACACTTGGCT
                                                                                                                                                                                                                                                                                                                          121 TGAAGCCGATCCTTACATAGATATTGATCAGAATGTGTTACACAGAACATAGACTTGGCT
                                                                                                                                                                                                                                                                                                                                                                                          TAAAGGACATCAGAAATCCAACGGTGAATTTTGGGATCCAGGAAGAGTGATTCATAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTTCAAGGTGGCAATAAAAGTCCAGTAACACTTACAGCCTATATTGTAACTTCTCTCCT
                                                                                                                                                                                                  TGGGAATTATGACCCTTCTGGGAGCACTTGGTTGTCAGCTTTTGTTTTAAGATGTTTCCT
                                                                                                                                                                                                                                        61 TGGGAATTATGACCTTCTGGGAGCACTTGGTTGTCAGCTTTTGTTTTAAGATGTTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCTTCAAGGTGGCAATAAAAGTCCAGTAACACTTACAGCCTATATTGTAACTTCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGATATAGAAAGTATCAGCCTAACATTGATGTGCAAGAGTCTATCCATTTTTTGGAGTC
                                                                                                                                         1 AGGCAAGGTTACCATGAGAGAACTTCTCTATCAGAGGGAAGATGGCTCTTTCAGTGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ı,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 497.4; DB 16; Length 520;
Pred. No. 1.8e-119;
0; Mismatches 1; Indels 1:
       Length 520;
                                                   1; Indels
                                                                                                      2872 AGGCAAGGTTACCA-GAGAGAACTTCTCTATCAGAGGGAAGATGGCT
Score 497.4; DB 13;
Pred. No. 1.8e-119;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3351 AGAAGGTGCCATGCAATTCTGGGTGTCATCA 3381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGAAGGTGGCATGCAATTCTGGGTGTCATCA 511
     11.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 99.6%;
Matches 509; Conservative
  Query Match
Best Local Similarity 99.6
Matches 509; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-242-535A-45412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-242-535A-45412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3291
                                                                                                                                                                                                  2931
                                                                                                                                                                                                                                                                                                                                                                                            3051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                              2991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
```

```
NAME/KEY: misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 29628 Application US/10085783A

Publication No. US20040037841A1

GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: Liew, C.C.

TITLE OF INVENTION: Compositions and Methods Relating to Osteoarthritis

FILE REFERENCE: 4231/2002

CURRENT APPLICATION NUMBER: US/10/085,783A

CURRENT FILING DATE: 2002-02-28

FRIOR FILING DATE: 2001-07-13

PRIOR FILING DATE: 2001-07-13

PRIOR FILING DATE: 2001-03-12

FRIOR FILING DATE: 2001-03-12

FRIOR FILING DATE: 2001-03-12

FRIOR FILING DATE: 2001-02-28

NUMBER OF SEQ ID NOS: 58994

SOFTWARE: PatentIn version 3.2

LENGTH: 499
                                                                                                                   3050
 2930
                                                         2990
                                                                                                                                                                              3110
                                                                                                                                                                                                                                        3111 GCTTCAAGGTGGCAATAAAAGTCCAGTAACACTTACAGCCTATATTGTAACTTCTCTCCT 3170
                                                                                                                                                                                                                                                                                                 3171 GGGATATAGAAAGTATCAGCCTAACATTGATGTGCAAGAGTCTATCCATTTTTTGGAGTC 3230
                                                                                                                                                                                                                                                                                                                                                              3231 IGAATICAGIAGAGGAATITICAGACAATIATACICIAGCCCTIAIAACITAIGCATIGIC 3290
                                                                                                                                                                                                                                                                                                                                                                                                                          3291 ATCAGTGGGGAGTCCTAAAGCGAAGGTTTTGAATATGCTGACTTGGAGGAGGAGAACA 3350
                                                                                                                                                                                                             240
                                                                                      120
                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                      361 IGAATTCAGTAGAGGAATTTCAGACAATTATACTCCCAGCCCTTATAACTTATGCATTGTC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                          09
                                                                                                                                                                                              2872 AGGCAAGGTTACCA-GAGAGAACTTCTCTATCAGAGGGAAGATGGCTCTTTCAGTGCTTT
                 1 AGGCAAGGTTACCATGAGAACTTCTCTATCAGAGGGAAGATGGCTCTTTCAGTGCTTT
                                                         2931 TGGGAATTATGACCCTTCTGGGAGCACTTGGTTGTCAGCTTTTGAAGATGTTTTCCT
                                                                                      61 regenarrandaceerreresadeerregrigienerringirandangirineer
                                                                                                                    2991 TGAAGCCGATCCTTACATAGATATTGATCAGAATGTGTTACACAGAACATACACTTGGCT
                                                                                                                                                                              3051 TAAAGGACATCAGAAATCCAACGGTGAATTTTGGGATCCAGGAAGAGTGATTCATAGTGA
                                                                                                                                                                                                                                                             241 GCTTCAAGGTGGCAATAAAAGTCCAGTAACACTTTACAGCCTATATTGTAACTTCTCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3351 AGAAGGTGGCATGCAATTCTGGGTGTCATCA 3381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAAGGTGGCATGCAATTCTGGGTGTCATCA 511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ຫ້
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: misc_feature
LOCATION: (41)...(41)
OTHER INFORMATION: n is a, c,
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: n is a, FEATURE:
NAME/KEY: misc_feature
LOCATION: (14).(14)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: misc feature LOCATION: (5)..(5)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
US-10-085-783A-29628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                        ò
                                                                              ď
                                                                                                         à
                                                                                                                                      g
                                                                                                                                                                      à
                                                                                                                                                                                                   g
                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
```

```
3571 CTGTCTGAATTTGCAGCCCTAATGAATACAGAAAAGGACAAATATCCAAGTGACCGTGACG 3630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3451 TCACACTICTTACAATTICAGACTICTGAGGGAATCCCAATTATGAGGTGGCTAAGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84 TCACACTINTIACAAINICAGACTICTGAGGGAAICCCNAITAIGANGIGGCTAAGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3511 CAAAGAAATAGCTTGGGTGGTTTTGCATCTACTCAGGATACCACTGTGGCTTTAAAAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                144 CAAAGAAATAGCTGGGGTGGTTTTGCATCTACTCAGGANACCACTGNGGCTTTAAAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           204 crercrearrrecaececraareaaracaeaaaecacaaaraceaaereaece
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3391 CTTTCTGACTCCTGGCAGCCACGCTCCCTGGAAGTTGCAGCCTATGCACTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24 CCTCCTAATACAGAGCANCCACGCTCNCTGGATATNGAAGCTGCAGCCTATGCACTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         264 GGGCCTAGCTCACCAAGTCCTGTNAAGTTTCTGATTGACACACAACCGCTTACTCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ------CTTGCTGTGGTACAGCCAATGGCAGTTAATATTTCCGCAAATGGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     324 CAGACAGCAGAGCTTGCTGTGGTACAGCCAATGGCAGTTAATATTTCCGCAAATGGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         51; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 13; Length 499;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
7.8%; Score 334.8; DB 13; Length '
Best Local Similarity 84.7%; Pred. No. 8.6e-77;
Matches 403; Conservative 0; Mismatches 22; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3631 GGGCCTAGCTCACCAAGTCCT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | NAME/KEY: misc_feature
| LOCATION: (412)
| OTHER INFORMATION: n is a, c, g, or t
| US-10-085-783A-29628
                                                                                                                                                                               ö
                                                                                                 ŏ
                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                 တ်
                                                                                                                                                                               ຫ້
                                                                                                                                                                                                                                                           ή
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ຫ້
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ģ
                                                                                                                                                                                                                                                                                                                                         ģ
                                                                                                                                                                                                                                                                                                                                                                                                                       ρì
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  တ်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ΰ
                                                                                                                                                                               ΰ
                                                                                                                                                                                                                                                           ú
                                                                                                                                                                                                                                                                                                                                                                                                                       ບົ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                υÌ
                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
NAME/KEY: misc feature
LOCATION: (1827..(182)
OTHER INFORMATION: n is a, c,
FEATURE:
NAME/KEY: misc feature
LOCATION: (190)
OTHER INFORMATION: n is a, c,
FEATURE:
NAME/KEY: misc feature
LOCATION: (287)..(287)
OTHER INFORMATION: n is a, c,
                                                  NAME/KEY: misc_feature
LOCATION: (59)...(59)
OTHER INFORMATION: n is a, c
FEATURE:
NAME/KEY: misc_feature
LOCATION: (92)...(92)
OTHER INFORMATION: n is a, c
                   ď
                                                                                                                                                                                                                                                           ď
                                                                                                                                                                                                                                                                                                                                                                                                                       ď
                                                                                                                                                                                                                                                                      FEATURE:
NAME/KEY: misc_feature
LOCATION: (122)
OTHER INFORMATION: n is a,
FEATURE:
NAME/KEY: misc_feature
LOCATION: (130)
OTHER INFORMATION: n is a,
                                                                                                                                                                                            FEATURE: misc feature LOCATION: (100)..(100) OTHER INFORMATION: n is
LOCATION: (50)...(50)
OTHER INFORMATION: n is
```

3510

143

3450

83

ä

3570

203

3651

323

263

3699

383

```
ઠે
                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                      Sequence 29628, Application US/10242535A
Sequence 29628, Application US/10242535A
Fublication No US20040013663A1
GENERAL INPORMATION:
APPLICANT: Chondrodene Inc.
APPLICANT: Liew, C.C.
TITLE OF INVENTION: Compositions and Methods Relating to Osteoarthritis
TITLE OF INVENTION: Compositions and Methods Relating to Osteoarthritis
CURRENT FILING DATE: 2002-09-12
FRIOR PELICATION NUMBER: US 10/085,783
FRIOR PELICATION NUMBER: US 60/305,340
FRIOR PELICATION NUMBER: US 60/305,340
FRIOR APPLICATION NUMBER: US 60/275,017
FRIOR APPLICATION NUMBER: US 60/275,017
FRIOR APPLICATION NUMBER: US 60/275,017
FRIOR APPLICATION NUMBER: US 60/275,017
FRIOR PILING DATE: 2001-03-12
FRIOR FILING DATE: 2001-03-28
NUMBER OF SEQ ID NOS: 56994
SOFTWARE: PatentIn version 3.2
LENGTH: 499
3760 AGACGAAGATCTATCCAAAATCAAGAAGCCTTTGATTTAGATGTTGCTGTAAAAGA 3815
                   444 AGACGAAGATCTATCCAAAATCAAGAAGCCTTTGATTTAGATGTTGCTGTAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            占
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               bì
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             bì
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            တ်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ຫ້
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ρĵ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            တ်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          တ်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ϋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ο
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ບ້
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: misc feature
LOCATION: (1227..(122)
OTHER INFORMATION: n is a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: misc feature
LOCATION: (100)..(100)
OTHER INFORMATION: n is a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: misc feature
LOCATION: (130)..(130)
OTHER INFORMATION: n is a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
NAME/KEY: misc feature
LOCATION: (50)...(50)
OTHER INFORMATION: n is a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
NAME/KEY: misc_feature
LOCATION: (92)...(92)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: misc feature
LOCATION: (5)...(5)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: misc feature
LOCATION: (14)...(14)
OTHER INFORMATION: n is
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: misc feature
LOCATION: (41)...(41)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: misc feature
LOCATION: (59)..(59)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: misc feature
LOCATION: (1827..(182)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
NAME/KEY: misc feature
LOCATION: (190)..(190)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE
                           g
ठे
```

```
VESULT 14

US-10-085-783A-46128

Sequence 46128, Application US/10085783A

Sequence 46128, Application No. US20040037841A1

GENERAL INFORMATION:
TAPLICANT: chondrodene Inc.
TITLE OF INVENTION: Compositions and Methods Relating to Osteoarthritis
FILE REPERENCE: 4231/2002

CURRENT APPLICATION NUMBER: US/10/085,783A

CURRENT FILING DATE: 2002-02-28

FRIOR FILING DATE: 2001-07-13

PRIOR PELING DATE: 2001-07-13

PRIOR FILING DATE: 2001-07-13

PRIOR FILING DATE: 2001-07-13

PRIOR FILING DATE: 2001-03-12

PRIOR FILING DATE: 2001-03-28

NUMBER OF SEQ ID NOS: 58994

SOFTWARE: Patentin version 3.2

LENGTH: 303

TENGTH: 303
                                                                                                                                                                                                                                                                                                                                                                                                                                         3391 CTITCTGACTCCTGGCAGCCACGCTCCCTGGATATTGAAGTTGCAGCCTATGCACTGCTC 3450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3451 TCACACTTCTTACAATTTCAGACTTCTGAGGGAATCCCAATTATGAGGTGGCTAAGCAGG 3510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAAAGAAATAGCTTGGGTGGTTTTGCATCTACTCAGGATACCACTGTGGCTTTAAAGGCT 3570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3571 CIGICIGAATITGCAGCCCTAAIGAATACAGAAAGGACAAATAICCAAGIGACCGIGACG 3630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .--- 3651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3652 ------CTTGCTGTGGTACAGCCAATGGCAGTTAATATTTCCGCAAATGGTTTT 3699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3700 GGATTTGCTATTTGTCAGCTCAATGTTGTATAATGTGAAGGCTTCTGGGTCTTCTAGA 3759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                144 CAAAGAAATAGCTGGGGTGGTTTTGCATCTACTCAGGANACCACTGNGGCTTTAAAGGCT 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              204 CTGTCTGAATTTTGCAGCCCTAATGAATACAGAAAGGACAAATATCCAAGTGACCGAGACG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      324 CAGACAGCAGAGCTTGCTGTGGTACAGCCAATGGCAGTTAATATTTCCGCAAATGGTTTT 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                384 GGATTTGCTATTTGTCAGCTCAATGTTGNATATAATGTGAAGGCTTCTGGGTCTTCTAGA 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3760 AGACGAAGATCTATCCAAAATCAAGAAGCCTTTGATTTAGATGTTGCTGTAAAAGA 3815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24 CCTCCTAATACAGAGCANCCACGCTCNCTGGATAINGAAGCTGCAGCCTATGCACTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  444 AGACGAAGATCTATCCAAAATCAAGAAGCCTTTGATTTAGATGTTGCTGTAAAAGA 499
                                                                                                                                                                                                                                                                                                                                                                                 51;
                                                                                                                                                                                                                                                                                                                       DB 16; Length 499;
                                                                                                                                                                                                                                                                                                                                                                              22; Indels
                                                                                                                                                                                                                                                                                                                       Cuery Match
7.8%; Score 334.8; DB 1
Best Local Similarity 84.7%; Pred. No. 8.6e-77;
Matches 403; Conservative 0; Mismatches 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3631 GGGCCTAGCTCACCAAGTCCT------
         or
                                                                                                                                                                                                                                          or
                                                                                                                           ö
                                                                                                                                                                                                                                          ຫ້
; OTHER INFORMATION: n is a, c, g, ; FRATURE; NAME/KEY: misc feature; LOCATION: (287)...(287); OTHER INFORMATION: n is a, c, g, FEATURE: NAME/KEY: misc feature; NAME/KEY: misc feature; LOCATION: (412)...(412); OTHER INFORMATION: n is a, c, g, US-10-242-535A,29628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
```

```
Publication No. US20040013663A1

Sublication No. US20040013663A1

GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Chondrodene Inc.
APPLICANT: Liew, C.C.
TITLE REFERENCE: 4231/2005
FILE REFERENCE: 4231/2005
CURRENT FILING DATE: 2002-09-12
FRIOR PEPLICATION NUMBER: US 10/085, 783
FRIOR PEPLICATION NUMBER: US 60/305, 340
FRIOR FILING DATE: 2001-07-28
FRIOR FILING DATE: 2001-07-28
FRIOR FILING DATE: 2001-03-12
FRIOR FILING DATE: 2001-03-12
FRIOR FILING DATE: 2001-03-28
FRIOR FILING DATE: 2001-03-28
NUMBER OF SEQ ID NOS: 58994
SOFTWARE: PARENTIN UWBER: US 60/271, 955
FRIOR FILING DATE: 2001-02-28
NUMBER OF SEQ ID NOS: 58994
SEQ ID NO 46128
LENGTH: 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                      ö
                                                                                                                                                                                                                640
                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               521 ATTIGATCCAACAGTGGTTGTCACAACAAGTGATCTTGGAGTCATTTCCAAAACTTTTC 580
                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                       700
                                                                                                                                                                                                                                                                                                                                                           760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 581 AGCTATCTTCCCATCCAATACTTGGTGACTGGTCTATTCAAGTTCAAGTGAATGACCAGA 640
                                                                                                                                                                                                                                                                                                                                                                                                                                 ATACATATGGGAAGCCAGTGAAAGGAGACGTAACGCTTACATTTTTACCTTTATCCTTTT 820
                                                                                                                                                                                                                                                                                                                                                                                                                                                      09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                      581 AGCTATCTTCCCATCCAATACTTGGTGACTGGTCTATTCAAGTTCAAGTGAATGACCAGA
                                                                                                                                                                                                                                                                                                              1 ATTIGATCCAACAGTGGTTGTCACAACAAAGAGATCTTGGAGTCATTNCAAAACTTTTC
                                                                                                                                                                                                                                     61 AGCTATCTTCCCATCCATATACTTGGAGACTGGTCTATTCAAGTCAAGTGAATGACCAGA
                                                                                                                                                                                                                                                                                       CATATTATCAATCATTTCAGGTTTCAGAATATGTATTACCAAAATTTGAAGTGACTTTGC
                                                                                                                                                                                                                                                                                                                                                           AGACACCATTATATTGTTCTATGAATTCTAAGCATTTAAATGGTACCATCACGGCAAAGT
                                                                                                                                          521 ATTIGATCCAACAGIGGIIGICACAACAAAGIGAICIIGGAGICAIIICCAAAACIITIIC
                                                                                                                                                                 1 ATTIGATCCAACAGTGGTTGTCACAACAAGAGATCTTGGAGTCATTTWCAAAACTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                        ö
                                                                  Score 297.2; DB 13; Length 303; Pred. No. 4.4e-67; 0; Mismatches 4; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 297.2; DB 16; Length 303; Pred. No. 4.4e-67; 0; Mismatches 4; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
NAME/KEY: misc_feature
LOCATION: (49)
COTHER INFORMATION: n is a, c, g, or t
US-10-242-535A-46128
                    ö
                    ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 98.7%;
Matches 299; Conservative
                    a, c,
                                                                      Query Match
Best Local Similarity 98.7%;
Matches 299; Conservative
; LOCATION: (49)..(49)
; OTHER INFORMATION: n is
US-10-085-783A-46128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                666
303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        821 GGG 823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 15
US-10-242-535A-46128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                                                           641
                                                                                                                                                                                                                                                                                                                                                               701
                                                                                                                                                                                                                                                                                                                                                                                                                                   191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                              셤
                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
61 AGCTATCTTCCCATCCAATACTTGGAGACTGGTCTATTCAAGTTCAAGTGAATGACCAGA 120
                                           700
                                                                                                  760
                                                                                                                            240
                                                                                                                                                        820
                                                                       180
                                                                                                                                                                      701 AGACACCATTATATTGTTCTATGAATTCTAAGCATTTAAATGGTACCATCACGGCAAAGT
                                                         CATATTATCAATCATTTCAGGTTTCAGAATATGTATTACCAAAATTTGAAGTGACTTTGC
                                                                                                                      181 AGACACCATTATATTGTTCTATGAATTCTAAGCATTTAAATGGTACCATCACGGCAAAGT
                                                                                                                                                        761 ATACATATGGGAAGCCAGTGAAAGGAGGCGTAACGCTTACATTTTACCTTTATCCTTTT
                                                                                                                                                                                                                                                                                  Search completed: August 18, 2004, 05:25:37 Job time : 2200 secs
                                                                                                                                                                                                                 821 GGG 823
                                                                                                                                                                                                                                             301 GGG 303
                                               641
                                               ò
                                                                       g
                                                                                                   ò
                                                                                                                            d
                                                                                                                                                          ò
                                                                                                                                                                                     g
                                                                                                                                                                                                                 ò
```

us-10-020-095-3.rni

```
August 17, 2004, 23:19:30 ; Search time 277 Seconds (without alignments) 8588.717 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                       US-10-020-095-3
4287
1 atgcagggcccaccgctcct......ttatggaactttggctgtga 4287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1365418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Issued_Patents NA:*

1: /cgn2 6/ptodata/2/ina/5A_COMB.seq:*

2: /cgn2-6/ptodata/2/ina/6A_COMB.seq:*

3: /cgn2-6/ptodata/2/ina/6A_COMB.seq:*

4: /cgn2-6/ptodata/2/ina/6B_COMB.seq:*

5: /cgn2-6/ptodata/2/ina/PCTUS_COMB.seq:*

5: /cgn2-6/ptodata/2/ina/PcTuS_COMB.seq:*
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                             682709 seqs, 277475446 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                             OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                          Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                             Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Database
                                                                                                                                                       Run on:
```

	Description	381-1810 Sequence 1810, Ap	4 Seguence 11	1, Apr	921-109 Sequence 109.	976-2813	63-14 Sequence 14, A	352B-1 Sequence 1,	411-1 Sequence 1,	594-924 Sequence 92	606-5 Sequence 5	606-3 Sequence 3,	813 Sequence 28	ď	.1 Sequence 11	ь 1	865	Sequence 80	0	Sequence 9, A	Sequence 2,	Sequence 8	Sequence 81,	3277	-1 Sequence 1, Appl	89	322. 7
SUMMARIES	Qi	US-09-833-	- 1		566-	621-	US-08-232-4	US-09-311-	US-08-447-	US-09-976-	US-09-241-	241-	US-09-621-	US-10-204-	US-09-356-	US-08-916		-09-60	US-09-601-	03E-60-SD	-08-95	US-09-071-(US-09-071-(US-09-328-	US-09-790-	US-09-621-9	US-09-134-(
9	DB:	4	4	4	4	4	Н	4	М	4	4	4	4	4	m	4	4	4	4	4	N	4,	4	4	4	4	4
	Length	3033	7	4577	4792	832	7218	339	5211	2802	333	750	832	10467	5398	1664976	657	1581	15016	1327	3981	1579	1680	3027	640681	399	30549
% Query	Match	60.3	2.6	•	2.5	1.1	1.1	1.1	1.1	1.1			1.0	1.0			0.9		0.9			6.0		6.0	6.0	6.0	6.0
, , ,	Score	2584.6	110	110	108.4	49	47.4	47.2	46.4	45.4	44	44	42.8	41.6	41.4	41.4	40.2	40	39.4	38.8	38.8	38.6	38.6	38.2	38.2	38	
Result	NO.	п	7	m	4	S	9 U	7	œ	σ	10	11	c 12	c 13	14	c 15	16	17	c 18	13	c 20	21	22	23	c 24	25	56

Sequence 1803, Ap	Sequence 587, App	Sequence 22, Appl	Sequence 2119, Ap		Sequence 14, Appl	Sequence 14, Appl			Sequence 76, Appl	9774	Sequence 10198, A	Sequence 3, Appli	154	Sequence 9867, Ap	Sequence 15639, A	Sequence 391, App	1, 7
US-09-134-001C-1803	US-08-956-171E-587	US-08-961-527-22	US-09-107-532A-2119	US-08-961-810-14	US-08-352-902D-14	US-09-265-503B-14	US-09-134-000C-542	US-09-266-965-68	US-09-266-965-76	US-09-252-991A-9774	US-09-252-991A-10198	US-09-434-408-3	US-09-620-312D-154	US-09-252-991A-9867	US-09-621-976-15639	US-08-956-171E-391	US-08-559-896B-1
4	4	4	4	m	m	4	4	4	4	4	4	4	4	4	4	4	4
1062	4709	28171	1152	526	526	526	840	1707	53500	987	1311	2169	2274	4248	505	2407	1956
6.0	0.0	6.0	0.9	6.0	0.0	0.0	6.0	0.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	0.8
37.8	37.8	37.8	37.4	37.2	37.2	37.2	37.2	37.2	37.2	3.7	3.7	37	37	37	36.6	36.6	36.4
c 58	59	30	c 31	32	33	34	35	36	37	38	c 39	40	c 41	42	43	44	45

rn
ř
Ż
臼
6
ថ
н
爿
~4

SULT 1 -09-833-3 Sequence Patent No GENERAL 1 ATTICON TITLEON TITLEON TITLE REF CURRENT CURRENT CURRENT CURRENT CURRENT TYPE: D TYPE:	pplication US/09833381 86 8100N: 800-100N: 800-100N: 800-100N-100N: 800-100-100N: 800-100N:
Db 13 Qy 18: Db 13	126 ATAGTTGGGATTGTAGCTGTTGACAAAGTGTGAATCTGATGATGCCTCTAATGATATT 185 1816 ACAATGGAAAATGTGGTCCATGAGTTGGAACTTTATAACACAGGATATTATTAGGCATG 1875 186 ACAATGGAAAATGTGGTCCATGAGTTGGAACTTTATAACACAGGATATTATTAGGCATG 245
Qy 18' Db 2'	1876 TICATGAATICTITIGCAGICTITCAGGAATGIGGACICTGGGTATTGACAGATGCAAAC 1935
Qy 193 Db 30	1936 CICACGAAGGAITATATIGAIGGTGTITATGACAAIGCAGAATATGCTGAGAGGITTATG 1995
Qy 199	1996 GAGGAAAATGAAGACATATTGTAGATATTCATGACTTTTTTTT

원

ò

à

음 당 음 8 B 8

음 상 음

366 GAGGAAAATGAAGGACATATTGTAGATATTCATGACTTTTCTTTGGGTAGCAGTCCACAT 425 2056 GTCCGAAAGCATTTTCCAGAGACTTGGATTTGGCTAGACACCAACATGGGTTACAGGATT 2115 	& 8 &	3136 GTAAC 1506 GTAAC 3196 ATTGA
TACCAAGAATTTGAAGTAACTGTACCTGATTCTATCACTTCTTGGGTGGCTACTGGTTTT 2175	3 A 8	
GTGATCTCTGAGGACCTGGGTCTTGGACTAACAACTACTCCGGTGGAGGTCCAAGCCTTC 2235 	3 8 8	
CAACCATITITCATITITIGAATCITCCCTACTCTGTTATCAGAGGTGAAGATTTGCT 2295 	i 6 i	
ttggaaataactatattcaattatttgaaagatgccactgaggttaaggtaatcattgag 2355 	ጵ 8 3	3376 TCATC 1746 TCATC
aaaagtgacaaatttgatattctaatgacttcaagtgaaataaat	3 A 6	1806 GCCTA
CAGACCCTICTGGTTCCCAGTGAGGATGGGGCAACTGTTCTTTTTCCCATCAGGCCAACA 2475 	S 6 5	1866 AGGTG
CATCTGGGAGAAATTCCTATCACAGTCACAGCTCTTTCACCCCACTGCTTCTGATGCTGTC 2535	à 8 à	
accagatgattttagtaaaggctgaaggaatagaaaaatcatattcacaatccatctta 2595 	6 G	
TTAGACTTGACTGACAATAGGCTACAGAGTACCCTGAAAACTTTGAGTTTCTCATTTCCT 2655 	S 6 5	
CCTAATACAGTGACTGGCAGTGAAAGAGTTCAGATCACTGCAATTGGAGATGTTCTTGGT 2715 	S G	
CCTICCATCAATGGCTTAGCCTCATTGATTCGGATGCCTTATGGCTGTGAACAGAAC 2775	oy D	
ATGATAAATTTTGCTCCAAATATTTACATTTTGGATTATCTGACTAAAAGAAACAACTG 2835 	, B &	
acagataattigaaagaaaagctctticatttatgaggcaaggttaccagagagctt 2895 	à a	2286 TCGGG
CTCTATCAGAGGAAAGATGGCTCTTTCAGTGCTTTTGGGAATTATGACCCTTCTGGGAGC 2955	δλ Dp	
ACTIGGITGICAGCITITGITITAAGAIGITICCTIGAAGCCGAICCTIACAIAGATAIT 3015 	, a ;	3985 AAACT
Gatcagaatgtgttacacagaacatacacttggcttaaaggacatcagaaatccaacgg 3075. 	6 6 6	2466 GTGAG
GAATTTTGGGATCCAGGAAGAGTGATTCA.TAGTGAGCTTCAAGGTGGCAATAAAGGTCCA 3135 	qq	2526 GAGCC

船 公 路 公 路 公 路 公 路 公

B &

음상음

\$ B \$

à

ATGCACTGCTCTCACATTTTCAGACTTCTGAGGGAATCCCAATTATG CTTCAGAAGCAATTTCTCTGAGCGAGACAGTGAAGAAAGTGGAATATGATCATGGA GCTTACTCCTTCAGACAGCAGAGATTACTTGTTACAGACAATTAATATT GAAACTITAAAGTITCAAABACCCAAGAIGCTICAGIGTCCATAGIGGAITACTAT

Med Aug Io 07:45:40 / 2004

```
à
                                                                                                              g
                                                                                                                                                        à
                                                                                                                                                                                       g
                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                      2586 CTTTGCAGTGATGTCCAGGGCTGCCGTCCTTGTGAGGATGGAGCTTCAGGCTCCCATCAT 2645
                                                                                                        2646 CACTCTTCAGTCATTTTTATTTTCTGTTTCAAGCTTCTGTACTTTATGGAACTTTGGCTG 2705
                                                                           4225 CACICIICAGICALITITAIITICIGITICAAGCIICIGIACIITAIGGAACITIGGCIG 4284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2905 ATTAGGCTCTGCCATGCAAAACACACAAAATCTTCTCCAGATGCCCTATGGCTGTGGAGA 2964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2845 Acraccaccaaargradragaagaarcraccaaacrrcrarcragrrragaarar 2904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2709 TCTTGGTCCTTCCATCAATGGCTTAGCCTCATTGATTCGGATGCCTTATGGCTGTGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2649 ATTTCCTCCTAATACAGTGACTGGCAGTGAAAGAGTTCAGATCACTGCAATTGGAGATGT
                                                                                                                                                                                                                                                                                     Sequence 1174, Application US/09016434

Sequence 1174, Application US/09016434

GENERAL INFORMATION:

APPLICANT: Janica Au Young

APPLICANT: Jeffrey J. Seilhamer

TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF SIGNALING

TITLE OF INVENTION: PATHWAY GENE EXPRESSION

NUMBER OF SEQUENCES: 1490

CORRESPONDENCES 1490

CORRESPONDENCES: 3174 FORTER PRIVE

STREET: 3174 FORTER DRIVE

COUNTRY: USA

COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
2.6%; Score 110; DB 4; Length 4079;
Best Local Similarity 50.2%; Pred. No. 3.6e-21;
Matches 303; Conservative 0; Mismatches 295; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM:
COMPUTER: DC-DOS/MS-DOS 6.2
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/016,434
FILING DATE: HEREWITH
FILING DATE: HEREWITH
CLASSIFICATION:
ATTORNY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: PA-002 US
REGISTRATION NUMBER: PA-0055
TELECOMMUNICATION INFORMATION:
TELESTANCE GS00 845-4166
INFORMATION FOR SEQ ID NO: 1174:
SEQUENCE CHARACTERISTICS:
LENGTH: 4079 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: linear IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LIBRARY: GENBANK
CLONE: 9177869
US-09-016-434-1174
                                                                                                                                                    4285 TGA 4287
|||
2706 TGA 2708
                                                                                                                                                                                                                                                      RESULT 2
US-09-016-434-1174
4165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                           d
                                                                           à
                                                                                                            g
                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

US-09-241-606-1
Sequence 1, Application US/09241606
Sequence 1, Application US/09241606
Sequence 1, Application US/09241606
Sequence 1, Application US/09241606
SENERAL INFORMATION:
APPLICANT: Tanzi, Rudolph E.
APPLICANT: Saunders, Jora
APPLICANT: Saunders, Jaleister J.
TITLE OF INVENTION: Alpha-2-Macroglobulin Therapies and Drug Screening Methods for TITLE OF INVENTION: Albha-2-Macroglobulin Therapies and Drug Screening Methods for TITLE OF INVENTION: Albha-2-Macroglobulin Therapies and Drug Screening Methods for TITLE OF INVENT APPLICATION NUMBER: US/09/241,606
CURRENT APPLICATION NUMBER: 1999-02-02
NUMBER OF SEQ ID NOS: 27
SOFTWARE: PatentIn Ver: 2.0
SEQ ID NO 1
LENGTH: 4577 2965 GCAGAATATGGTCCTCTTTGCTCCTAACATCTATGTACTGGATTATCTAAATGAAACACA 3024 2829 ACAACTGACAGATAATTTGAAAGAAAAAGCTCTTTCATTTATGAGGCAAGGTTACCAGAG 2888 3145 GAACCAGGGAACACCTCGCTCACACCTTTGTTCTGAAGACTTTTGCCCCAACTCGAGC 3325 AGTAGAAGATGAAGTGACCCTCCCCCTATATCACCATCGCCCTTCTGGAGATTCCTCT 3384 3385 CACAGTCACTCACCTGTTGTCCGCAAAGCCCTGTTTTGCCTGGAGTCAGCCTGGAAGAC 3444 2769 ACAGAACATGATAAATTTTGCTCCAAATATTTACATTTTGGATTATCTGACTAAAAAGAA 2828 3025 GCAGCTTACTCCAGAGGTCAAGGCCATGGCTATCTCAACACTGGTTACCAGAG 3084 2889 AGAACTICTCTATCAGAGGAAGATGGCTCTTTCAGTGCTTTTGGG-----AATTATGA 2942 3085 ACAGTIGAACIACAACACTATGAIGGCICCIACAGCACCITIGGGGAGCGATAIGGCAG 3144 2943 CCCTTCTGGGAGCACTTGGTTGTCAGCTTTTTAAGATGTTTCCTTGAAGCCGATCC 3002 3003 TTACATAGATATTGATCAGAATGTTACACACAGAACATACACTTGGCTTAAAGGACATCA 3062 3205 ciacaicricaiccaicaacacacaritacccaaccercaraiccircreceacaaca 3264 3063 GAMATCCAACGGTGAATTTTGGGATCCAGGAAGAGTGATTCATAGTGAGCTTCAAGGTGG 3122 3265 GAAGGACAATGGCTGTTTCAGGAGCTCTGGGTCACTGCTCAACAATGCCATAAAGGGAGG 3324 3123 CAATAAAAGTCCAGTAACACTTACAGCCTATATTGTAACTTCTCTCCTGGGATATAGAAA 3182 3183 GTATCAGCCTAACATTGATGTGCAAGAGTCTATCCATTTTTGGAGTCTGAATTCAGTAG 3242 2649 ATTTCTCTCTAATACAGTGACTGCAGTGAAAGAGTTCAGATCACTGCAATTGGAGATGT Query Match 2.6%; Score 110; DB 4; Length 4577; Best Local Similarity 50.2%; Pred. No. 4e-21; Matches 303; Conservative 0; Mismatches 295; Indels TYPE: DNA OGGANISM: Homo sapiens PEATURE: NAME/KEY: sig_peptide LOCATION: (44)..(112) PEATURE: NAME/KEY: CDS LOCATION: (44)..(4468) FEATURE:) NAME/KEY: mat_peptide ; LOCATION: (113)..(4468) US-09-241-606-1 3243 AGGA 3246 3445 AGCA 3448

g ò g ò d ò g ò 염 ò d ò

ठे

```
3401 chacarcatedatedadescaesaratracecadecercatardecreeseses 3460
                                                                                                                                                                                                                                                                                                                    AGAACTICICIAICAGAGGGAAGAIGGCICIIIICAGIGCITIIGGG-----AAITAIGA 2942
                                                                                                                                                                                                                                                                                                                                                                  3281 ACAGTTGAACTTACAAACACTATGATGGCTCCTACAGCACCTTTGGGGAGCGATATGGCAG 3340
                                                                                                                                                                                                                                                                                                                                                                                                                        CCCTTCTGGGAGCACTTGGTTGTGTTTTAAGATGTTTCCTTGAAGCCGATCC 3002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAACCAGGGCAACACCTGGCTCACAGCCTTTGTTCTGAAGACTTTTGCCCAAGCTCGAGC 3400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAATCCAACGGTGAATTTTGGGATCCAGGAAGAGTGATTCATAGTGAGCTTCAAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3003 TTACATAGATATTGATCAGAATGTGTTACACAGAACATACACTTGGCTTAAAGGACATCA
                                                                                                                                                             3161 GCAGAATATGGTCCTTTTAGCTCCTATGTACTGGATTATCTAAATGAAGCACA
             2709 ICTIGGICCTICCALCAATGGCTTAGCCTCATTGATTCGGATGCCTTATGGCTGTGGTGA
                                                   3101 ATȚAĞGCTCTGCCATGCAAAACACAAAATCTTCTCCAGATGCCCTATGGCTGTGGAGA
                                                                                                                 2769 ACAGAACATGATAAATTTTGCTCCAAATATTTACATTTTGGATTATCTGACTAAAAGAA
                                                                                                                                                                                                                     2829 ACAACTGACAGATAATTTGAAAGAAAAAGCTCTTTCATTTATGAGGCAAGGTTACCAGAG
                                                                                                                                                                                                                                                                      3221 GCAGCTTCCTCCAGAGATCAAGTCCAAGGCCATTGGCTATCTCAACACTGGTTACCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3243 AGGA 3246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3641 AGCA 3644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; NAME/KEY: CDS
; LOCATION: 235..399
US-09-621-976-2813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
US-09-621-976-2813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 2813
                                                                                                                                                                                                                                                                                                                                                                                                                                   2943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3063
                                                                                                                                                                                                                                                                                                                               2889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                             원
                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                g
                                                                                                                       ò
                                                                                                                                                               Dp
                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2649 ATTICCTCCTAAIACAGTGACTGGCAGTGAAAGAGTTCAGATCACTGCAATTGGAGATGT 2708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3041 Acreccaccaahreredrasaaaancrecceaecrererererereaerrireeaakan 3100
                                                                                                                                                                                                                                                                                                                                                             2942
                                                                                                                                                                                                                                                                                                                                                                                                                                                            3002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3063 GAAATCCAACGGTGAATTTTGGGATCCAGGAAGAGTGATTCATAGTGAGCTTCAAGGTGG 3122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3325 AGTAGAAGATGAAGTGACCTCTCCGCCTATATCACCATCGCCCTTCTGGAGATTCCTCT 3384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3183 GIATCAGCCTAACATTGATGTGCAAGAGTCTATCCATTTTTGGAGTCTGAATTCAGTAG 3242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3385 cacagreacteacecterteriereceaargecererrirgecresacresacresacae 3444
                                                                                                                                                    2769 ACAGAACATGATAAATTTTGCTCCAAATATTTACATTTTGGATTATCTGACTAAAAAAA 2828
                                                                                                                                                                                                                                                                                                         3084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3123 CANTAAAAGTCCAGTAACACTTACAGCCTATATTGTAACTTCTCTCCTGGGATATAGAAA 3182
                                                                                                                                                                                                                                                                                                                                                                                                           3085 ACAGTIGAACTACAAACACTATGATGGCTCCTACAGCACCTTTGGGGAGCGATATGGCAG 3144
2845 ACTGCCACCAAATGTGGTAGAAGAATCTGCCCGAGCTTCTGTCTCAGTTTTGGGAGACAT 2904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3265 gaaggacaargestertricagaagerergegestericaacaargestaaaggagg
                                                                                                                                                                                                                                                                                                 3025 GCAGCTTACTCCAGAGATCCAAGGCCATTGGCTATCTCAACACTGGTTACCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2943 CCCTTCTGGGAGCACTTGGTTGTCTTTTTAAGATGTTTCCTTGAAGCCGATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3145 GAACCAGGGAACACCTGGCTCACAGCCTTTGTTCTGAAGACTTTTGCCCAAGCTCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3003 TIACATAGATATTGATCAGAATGTGTTACACAGAACATACACTTGGCTTAAAGGACATCA
                                                                                                    2905 ATTAGGCTCTGCCATGCAAAACACACAAAATCTTCTCCAGATGCCCTATGGCTGTGGAGA
                                                                                                                                                                                                                                                           2829 ACAACTGACAGATAATTTGAAAGAAAAAGCTCTTTCATTTATGAGGCAAGGTTACCAGAG
                                                                                                                                                                                                                                                                                                                                                             2889 AGAACTICTCTATCAGAGGGAAGATGGCTCTTTCAGTGCTTTTGGG-----AATTATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3205 chacarcracadadaacacacarracccaacacarcarcaradecracacaaagaa
                                                                                                                                                                                                     2965 gcagaananderccrcrrrdcrccraacarcrargracregarrarcraaargaaacaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-566-921-109
US-09-566-921-109
US-09-566-921-109
Sequence 109, Application US/09566921
Patent No. 6682888
Sequence 109, Application US/09566921
Patent No. 6682888
Septiment InfoRMATION:
APPLICANT: Tingley, Debora W.
APPLICANT: Tingley, Debora W.
TITLE OF INVENTION: GENES EXPRESSED IN ALZHEIMER'S DISEASE
FILE REFERENCE: PA-0024 US
CURRENT FILICATION NUMBER: US/09/566,921
CURRENT FILICATION NUMBER: US/09/566,921
SOFTWARE: PERL PROGRAM
SOFTWARE: PERL PROGRAM
SEQ ID NO 109
SEQ ID NO 109
SEQ ID NO 109
SEQ ID NO 109
SEQ ID NO 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 4792;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
2.5%; Score 108.4; DB 4; Length
Best Local Similarity 50.0%; Pred. No. 1.2e-20;
Matches 302; Conservative 0; Mismatches 296; Indels
                                                      2709 ICTIGGICCTICCATCAAIGGCTIAGCCICATIGATICGGAIGCCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No. 6682888 369213.15
US-09-566-921-109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGA 3246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCA 3448
```

g

g

à

g

ò d

à

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2830 CAACTGACAGATAATTTGAAAGAAAAAGCTCTTTCATTTATGAGGCAAGGTTACCAGAGA 2889
3123 CAATAAAAGTCCAGTAACACTTACAGCCTATATTGTAACTTCTCTCTGGGATATAGAAA 3182
                                                                                                                                  3183 GIATCAGCCTAACATTGATGTGCAAGAGTCTATCCATTTTTTGGAGTCTGAATTCAGTAG 3242
                                                                                                                                                                                             3581 cacagreacreatedecrientenecesanacecristrinscendaadreacerisaaaac 3640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 YRHYWWKYTTWYAKCWTKHKWSWSYMMYWKWYMKTYWRWRRKKKKKAWWKYWKTWTWWKYW 60
                                                                  3521 AGTAGAAGATGAAGTGACCTCTCGGCCTATATCACCATGGCCTTCTGGAGATTCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 9.5%; Pred. No. 0.00076;
Matches 34; Conservative 175; Mismatches 150; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2813. Application US/09621976
; Sequence 2813. Application US/09621976
; Patent No. 6639063
; GENERAL INFORMATION:
    APPLICANT: Dumas Milne Edwards, J.B.
    APPLICANT: Jobert, S.
    APPLICANT: Glordano, J.Y.
    TILE REPERINCENCE: GENSET.054PR2
    CURRENT APPLICATION WUMBER: US/09/621,976
    CURRENT FILING DATE: 2000-07-21
    NUMBER OF SEQ ID NOS: 19335
    SOFTWARE: Patent.pm
```

g,

```
RESULT 8
US-08-447-411-1
; Sequence 1, Application US/08447411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     b,
                      q
                                                                                            Db
                                                                                                                           à
                                                                                                                                                                    qq
                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                               \delta
                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                  ò
                                                                                                                                                                                                          ò
                                                 2950 GGGAGCACTTGGTTGTCTGTTTGTTTAAGATGTTTCCTTGAAGCCGATCCTTACATA 3009
                                                                                                                                                                                           3070 AACGGTGAATTTTGGGATCCAGGAAGAGTGATTCATAGTGAGCTTCAAGGTGGCAATAAA 3129
                                                                                                                     3010 GATAITGAICAGAAIGIGITACACAGAACAIACACTIGGCTIAAAGGACAICAGAAAICC 3069
121 YRCWKKKAYYRKTTCYSSKGWTWWKRWKKAWTTWWWKKTYYWAATRYWAMKCWTKRWRAS 180
                                                                                                                                          181 WWYCWTWGKARKWSTWRKSRSYASARSAKRCCYSCSWGAMSWKYMWRMRWRGWATGAGM 240
                                                                                                                                                                                                                  241 KAWRASCMMRRKYAGKSKTSYKSMWMCWTRSWKYCYTKARWIGYYCYRKGGMWGKRGRWY 300
                                                                                                                                                                                                                                                             Length 7218;
                                                                                                                                                                                                                                                            RESULT 6

US-08-232-463-14/C

Sequence 14, Application US/08232463

Sequence 14, Application US/08232463

Patent No. 5570367

GENERAL INFORMATION:

APPLICANT: DORNER, F.

APPLICANT: SCHEIFLINGER, F.

APPLICANT: SCHEIFLINGER, F.

TITLE OF INTENTION: RECOMBINANT FOWLPOX VIRUS

NUMBER OF SEQUENCES: 5.2

CORRESPONDENCE ADDRESS:

ADDRESSEE: Folgy & Lardner

STREET: 1800 Diagonal Road, Suite 500

CITY: Alexandria

STATE: VA

COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
1.1%; Score 47.4; DB 1;
Best Local Similarity 4.5%; Pred. No. 0.01;
Matches 18; Conservative 217; Mismatches 168;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30472/114 IMMU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: 435
PRIOR APPLICATION DATA:
PREDICATION NUMBER: US/07/935,313
FILING DATE: 26-MUG-1991
APPLICATION NUMBER: EP 91 114 300.6
FILING DATE: 26-MUG-1991
ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
RESTERROYCOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMpatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve.
CHRRENT APPLICATION DATA:
APPLICATION NUMBER: US/203/463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEX: 899149
INPORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 7218 base pairs
TYPE: nucled: acid
STRANDEDNES: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (703)683-4109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     , CLONE: pTZgpt-Fls
US-08-232-463-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IMMEDIATE SOURCE:
     d
                                             à
                                                                        g
                                                                                                            \delta
                                                                                                                                              d
                                                                                                                                                                                       δ
                                                                                                                                                                                                                  d
```

```
1269 CCAAAGTGGAACTTTTAAGATTGAATTCCCAATCCTGGAGGATTCCAGTGAGCTACAGTT 1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1449 TGAGTTGGTGGTTAGTGGCAACAAACGATTGAAGGAGTTAAGCTATATGGTAGTATTCCAG 1508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2056 GTCCGAAAGCATTTTCCAGAGATTTGGCTAGACACCAACATGGGTTACAGGATT 2115
1149 AGAAAGAAGAATAATGTAGTCATAACAGTGACACAGAGAAACTATACTGAGTACTGGAG 1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAGGCCTATTTCCTTGGTAGTAAAAGTAGCATGGCAGTTCATAGTCTGTTTAAGTCTCC 1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                157 grascreascriadeadralacidentectreacacearcanceacresandealegeacearre 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             217 TGCCTGTCTGAAGATGCTGGACTTGGTATCTCTTCCACTGCCTCT---CTCCGAGCCTTC 273
                                                                                                                                                                                                                                                                                                                                2176 GIGAICTCTGAGGACCTGGGTCTTGGACTAACAACTGCCAGTGGAGCTCCAAGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              236 CAACCATTTTTCATTTTTTGAATCTTCCCTACTCTGTTATCAGAGGTGAAGAATT 2291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1389 TAGTAAGACATACATCCAACTAAAAACAAGAGATGAAAATATAAAGGTGGGATCGCCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2116 TACCAAGAATTTGAAGTAACTGTACCTGATTCTATCACTTCTTGGGTGGCTACTGGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97 graccadaderacriccercadadacarececedeareregeareregegearereceaecage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               274 CAGCCCTTCTTTGTGGAGCTCACAATGCCTTACTCTGTGATTCGTGGAGGGCCTT 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7.85-09-311-352B-1
7.8cquence 1, Application US/09311352B
7.8cquence 1, Application US/09311352B
7.8cquence 1, Application 0.63250C
7.8cquence 1, Application 1.
7.8cquence 1, Application 2.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.
7.8cquence 1, Application 3.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ouery Match
1.1%; Score 47.2; DB 4; Length 3:
Best Local Similarity 53.0%; Pred. No. 0.0013;
Matches 125; Conservative 0; Mismatches 108; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1509 GGGACAGTTGGTGGCTGTAGGAAAACAAATTCAACAATGTTC 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
CRGANISM: Homo sapiens
US-09-311-352B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 1
LENGTH: 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1329
```

-, 1

ö

Gaps

. 0

Indels

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3609 TCAACAGGAAGGAATCGTTGGGAAGAATATAATGCTCGCACCCATAATATTGAAGGCACT 3668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3436 GCCTATGCACTGCTCTCACACTTCTTACAATTTCAGACTTCTGAGGGAATCCCAATTATG 3495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3496 AGGIGGCIAAGCAGGCAAAGAAAIAGCITIGGGTGTITIGCAICTACTCAGGAIACCACT 3555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3729 AGATGGCTGATAGATCAGAAATATTATGGGGGAACATATGGACAAACCCAAGCAACAGTT 3788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3376 TCATCAGAGTCCAAACTTTCTGACTCCTGGCAGCCACGCTCCCTGGATATTGAAGTTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Quèry Match
1.1%; Score 46.4; DB 1; Length 5211;
Best Local Similarity 50.4%; Pred. No. 0.016;
Matches 113; Conservative 0; Mismatches 111; Indels 0.
Patent No. 5773243
GENERAL INFORMATION:
APPLICANT: FITZINGER, DAVID C.
APPLICANT: BREDEHORST, REINHARD
APPLICANT: VOGEL, CARL-WILHELM
TITLE OF INVENTION: DNA ENCODING COBRA C3, CVF1, AND CVF2
NUMBER OF SEQUENCES: 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3789 Aridergitrcaadercirciredaatardagarreagardeerad 3832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3556 GTGGCTTTAAAGGCTCTGTCTGAATTTGCAGCCCTAATGAATAC 3599
                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,
ADDRESSEE: P.C.
STRREET: 1755 S. Jefferson Davis Highway, Suite 400
CITY: Arlington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/447,411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
CLASSIFICATION 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/043,747
FILING DATE: 07-APR-1993
ATTORNEY AGENT INFORMATION:
NAME: Objon, No. 5773243man F.
REGISTRATION NUMBER: 24,618
REFERENCE/DOCKET NUMBER: 1126-101-0
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 413-3000
TELEFAX: (703) 413-2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Sequence 924, Application US/09976594; Parent No. 6673549; GENERAL INFORMATION;
                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING. SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: unknown MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEX: 248855 OPAT UR INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5211 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QDENCL
LENGTH: 5211 Dac-
TYPE: nucleic acid
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9..4961
                                                                                                                                                                                                                                                                                                               Virginia
: U.S.A.
                                                                                                                                                                                                                                                                                                                                                          22202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; NAME/KEY:
; LOCATION:
US-08-447-411-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-976-594-924
                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
```

```
APPLICANT: Furness, Michael
APPLICANT: Buchbinder, Jenny
TITLE OF INVENTION: GENES EXPRESSED IN C3A LIVER CELL CULTURES TREATED WITH STEROIDS
FILE REFERENCE: PA-0041 US
CURRENT APPLICATION NUMBER: US/09/976,594
CURRENT APPLICATION NUMBER: 60/240,409
PRIOR APPLICATION NUMBER: 2000-10-12
NUMBER OF SEQ ID NOS: 1143
SOFTWARE: PERL PROGRAM
SOFTWARE: PERL PROGRAM
SEQ ID NO 924
LENGTH: 2802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Tanzi, Rudolph E.
APPLICANT: Tanzi, Rudolph E.
APPLICANT: Kovace, Dora
APPLICANT: Saunders, Jora
TITLE OF INVENTION: Alpha-2-Macroglobulin Therapies and Drug Screening Methods for TITLE OF INVENTION: Alzheimer's Disease
TITLE OF INVENTION: Alzheimer's Disease
CURRENT APPLICATION NUMBER: US/09/241,606
CURRENT APPLICATION NUMBER: 1999-02-02
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1272 TAAATGCTGAAAGTTACTATAAGAAAGCTTTGGCTTTGGATGAGACTTTTAAAGATGCAG 1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1332 AGGATGCTTTGCAGAACTTCATAATATATGCAGAAATCTTTGGAATTAAGAGAAAAAC 1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1452 GTAACGTCTTAAAAGAAGAGAAGAGGCTAAAGAAGAAAAGAAAATCAACTTCTTCTT 1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    629 TGAATGACCAGACATATTATCAATCATTTCAGGTTTCAGAATATGTATTACCAAAATTTG 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            689 AAGTGACTTTGCAGACACCATTATATTGTTCTATGAATTCTAAGCATTTAAATGGTACCA 748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           809 CITITALCCITITIGGGGAAAGAAGAAAAIATTACAAAAACATITAAGATAAATGGATCTG 868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     749 ICACGGCAAAGTATACATATGGGAAGCCAGTGAAAGGAGACGTAACGCTTACATTTTTÄČ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 2802;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
1.1%; Score 45.4; DB 4; 1
Best Local Similarity 48.3%; Pred. No. 0.02;
Matches 127; Conservative 0; Mismatches 136;
                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: misc feature
COTHER INFORMATION: Incyte ID No. 6673549 481118.7
NAME/KEY: unsure
COCATION: 1873, 2029
OTHER INFORMATION: a, t, c, g, or other
US-09-976-594-924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1512 caagreiricirciscigardaa 1534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      869 CAAACTTCTCTTTAATGATGAA 891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Binding Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
US-09-241-606-5
; Sequence 5, Application US/09241606
; Patent No. 6472140
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
NAME/KEY: CDS
LOCATION: (1)..(333)
OTHER INFORMATION: A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
```

DB 4; Length 333;

1.0%; Score 44;

Query Match

```
Length 832;
Query Match
1.0%; Score 42.8; DB 4; Length 8
Best Local Similarity 12.2%; Pred. No. 0.049;
Matches 47; Conservative 166; Mismatches 173; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches 194; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1314 CAGTGAGCTACAGTTGAAGGCCTATT 1339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27 KWRSWSWMWMAWGMTRWAARMWRWY 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2, Application US/10204708 Patent No. 6677731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              46.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 46.43
Matches 169; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-204-708-2/c
                                                                                                                                                                                                                                                                                                                                    1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                     ਨੇ
                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                    RESULT 11
US-09-241-606-3
US-09-241-606-3
; Sequence 3, Application US/09241606
; Patent No. 6472140
; Patent No. 6472140
; GENERAL INFORMATION:
; APPLICANT: Tanzi, Rudolph E.
; APPLICANT: Rovacs, Dora Aleister J.
; APPLICANT: Saunders, Aleister J.
; TITLE OF INVENTION: Alzheimer's Disease
; TITLE OF INVENTION: Alzheimer's Disease
; TITLE REFERENCE: 0609-4460003
; CURRENT APPLICANION NUMBER: US/09/241,606
; CURRENT FILING DATE: 1999-02-02
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 3
LENGTH: 750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3481 GGAATCCCAATTATGAGGTGGCTAAGCAGGCAAAGAAATAGCTTGGGTGGTTTTGCATCT 3540
                            ö
                                                                 3481 GGAATCCCAATTATGAGGTGGCTAAGCAGGCAAAGAAATAGCTTGGGTGTTTTGCATCT 3540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    78
                                                                                                          19 ecaaccaacarcereaagreearcaceaagcagcagaargeccaaggcegerrrereeree
                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .;
0
                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3541 ACTCAGGATACCACTGTGGCTTTAAAGGCTCTGTCTGAATTTGCAGCC 3588
                                                                                                                                                  3541 ACTCAGGATACCACTGTGGCTTTAAAGGCTCTGTCTGAATTTGCAGCC 3588
                                                                                                                                                                          79 Acccaddacacacaggagagachcrcandcrchdracaanangaagac 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ouery Match
1.0%; Score 44; DB 4; Length 750;
Best Local Similarity 63.0%; Pred. No. 0.02;
Matches 68; Conservative 0; Mismatches 40; Indels
        Best Local Similarity 63.0%; Fred. No. 0.011;
Matches 68; Conservative 0; Mismatches 40; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 12
US-09-6213/Application US/09621976
; Sequence 2813, Application US/09621976
; Patent No. 6639063
; GENERAL INPORMATION:
; APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Gloraton, J.Y.
; APPLICANT: Gloraton, J.Y.
; FILE REPERENCE: GENSET.054PR2
; CURRENT FILING DATE: 2000-07-21
; NUMBER OF SEQ ID NOS: 19335
; SOFTWARE: Patent.pm
; SEQ ID NO 2813
; LENGTH: 832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; LOCATION: (1)..(750)
; OTHER INPORMATION: A /LRP Binding Domain
US-09-241-606-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; LOCATION: 235..399
US-09-621-976-2813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
LOCATION: (1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \delta
                                                                                                      g
                                                                                                                                                    ò
                                                                                                                                                                                       원
```

```
APPLICANT: OLEK, Alexander
APPLICANT: DLEK, Alexander
APPLICANT: DLEK, Alexander
APPLICANT: DLEK, Alexander
APPLICANT: BERLIN, Kurt
TITLE OF INVENTION: Diagnosis of Diseases Associated with DNA Replication
TITLE OF INVENTION: Dy Assessing DNA Methylation
FILE REPERBURC: 5013.1012
CURRENT APPLICATION WUMBER: US/10/204,708
CURRENT FILING DATE: 2003-05-06
PRIOR APPLICATION NUMBER: DE 10019058.8
PRIOR FILING DATE: 2000-04-06
PRIOR APPLICATION NUMBER: DE 10019173.8
PRIOR FILING DATE: 2000-04-07
PRIOR PELING DATE: 2000-04-07
PRIOR PELING DATE: 2000-04-07
PRIOR FILING DATE: 2000-04-07
PRIOR FILING DATE: 2000-09-01
PRIOR FILING DATE: 2000-09-01
NUMBER OF SEQ ID NOS: 98
SEQ ID NO 2
LENGRIT: 10467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1014 AAGCACTAATGTGTTCTTCAAGCAACATGATTACATCATTGAGTTTTTTGATTATACTAC 1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1254 AAATTATACTGTCCCCCAAAGTGGAACTTTTAAGATTGAATTCCCAATCCTGGAGGATTC 1313
954 TGGACCAGTAGAATTTTAACCACAGTGACAGAATCAGTTACAGGTATTTCAAGAAATGT 1013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1194 TACTGAGTACTGGAGCGGATCTAACAGTGGAAATCAGAAAATGGAAGCTGTTCAGAAAAT 1253
                                        267 GKWKSMRSAMSMCTRMYYKKGSTYWTWKCTCATWCYWYWKYWKRWWSKTCWSGSRGGYMT 208
                                                                                                                                                                                                                                                                                                                                                                                                                     207 SYTSTRSYSMYWASHMYTTMCRWWGRIYWYMAMGKKWWRYATTWRRAMYWWAAWINM 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                327 STYACASRYRKYTWGWWWYMWKRMMSTRWYCYMCWKCCMYRGRRCAWYTMARGRMWSYAW
                                                                                                                                                                                                                                                          1074 TGTCTTGAAGCCATCTCTCAACTTCACAGCCACTGTGAAGGTAACTCGTGCTGATGGCAA
                                                                                                                                                                                                                                                                                                                                                                                CCAACTGACTCTTGAAGAAAGAAGAATAATGTAGTCATAACAGTGACACAGAGAAACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   147 WYMWWAWCHSSRGAAMYRRTMMMGYRYWWRKKSYRRTRCAWAYAWKTKRSYRWKW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               813 ATCCTTTTGGGGAAAGAAGAAAATATTACAAAAACATTTAAGATAAATGGATCTGCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:

JOHER INFORMATION: chemically treated genomic DNA (Homo sapiens)

(MS-10-204-708-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.0%; Score 41.6; DB 4; Length 10467; 46.4%; Pred. No. 0.67;
```

ω

873 CTTCTCTTTTAATGATGAAGAGATGAAAATGTAATGGATTCTTCAAATGGACTTTCTGA 932

```
RESULT 15
JS-08-916-421B-1/C
  8643 AACAAAATITATTAACACACAATT-CTAAAAACTAAAAATTCAAAATTAAAAATCAA 8585
                                                                                                                                                                                                                                    1053 TGAGTITITIGATTATACTACTGTCTTGAAGCCATCTCTCAACTTCACAGCCACTGTGAA 1112
                                                                                                                                                                                                                                                                                                                               2731 AGGAAGAAAAATATCCATTAACTGTAGACACTTTGAATACAATGAAGAAGAAATCCTCG 2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2791 CAARITITIGAAAATIAAATAATGCIACAGGIGAACACTIAAAAATIAIAAGIAAACCC 2850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  982 ACAGAATCAGTTACAGGTATTTCAAGAATGTAAGCACTAATGTGTTCTTCAAGCAACAT 1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2851 AANAGCAGAATTAGGAATTIGGAATAAATTCAAGCACATACGAACAATAAATCAGAAT 2910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2671 TTTACACCTTTCAACGTCCTTCTCATAACAGAACCTTTTCAAGAGCAAGGGATTTCAAAA 2730
                                                 ATACCTGGATCTATCTTCCCCTGGACCAGTAGAAATTTTAACCACAGTGACAGAATCAGT 992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        802 TTTTTACCTTTATCCTTTTGGGGAAAGAAGAAAATATTACAAAAACATTAAGATAAAT 861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   862 GGATCTGCAAACTTCTCTTTTAATGATGAAGAGAGAAAAAATGTAATGGATTCTTCAAAT 921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            922 GGACTTTCTGAATACCTGGATCTATCTTCCCCTGGACCAGTAGAAATTTTAACCACAGTG 981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: Borlack-Sjodin, Ann
APPLICANT: Borlack-Sjodin, Ann
APPLICANT: Borlack-Sjodin, Ann
APPLICANT: Borlack-Sogi, Dafna
APPLICANT: Cole, Philip
APPLICANT: Cole, Philip
APPLICANT: Cole, Philip
TITLE OF INVENTION: THEREOF
TITLE OF INVENTION: THEREOF
TITLE OF INVENTION: THEREOF
TITLE OF INVENTION: THEREOF
TITLE OF INVENTION: 1999-07-19
CURRENT APPLICATION NUMBER: 60/093,631
EARLIER FILING DATE: 1998-07-21
NUMBER OF SEQ ID NOS: 14
SOFTWARE PRICENT OF SEQ ID NOS: 14
SOFTWARE PRICENT OF: 2.0
SEQ ID NO: 11
LENGTH: 5398
                                                                                                                                            993 TACAGGTATTTCAAGAAATGTAAGCACTAATGTGTTTCTTCAAGCAACATGATTACATCAT
                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.0%; Score 41.4; DB 3; Length 5398; 47.2%; Pred. No. 0.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches 141; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2911 GITTTACTATTGGAGATACTGGAGAAT 2937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1042 GATTACATTGAGTTTTTGATTAT 1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 11, Application US/09356952
Patent No. 6117663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Saccharomyces cerevisiae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 47.2
Matches 126; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                          1173 AACA 1176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8464 AAAA 8461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -09-356-952-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-356-952-11
                                                 933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
g
                                                                                        g
                                                 ò
                                                                                                                                       ò
                                                                                                                                                                                     g
                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
```

```
GENERAL INFORMATION:

BAPLICANT: Bult et al.

ITLE OF INVENTION: Complete Genome Sequence of the Methanogenic Archaeon, Methanococc
Patent No. 6503729
TITLE OF INVENTION: jannaschii
FILE OF INVENTION: jannaschii
FILE REFERENCE: P8275
CURRENT APPLICATION NUMBER: US/08/916,4218
CURRENT APPLICATION NUMBER: US 60/024,428
PRIOR FILING DATE: 1996-08-22
PRIOR FILING DATE: 1996-08-22
NUMBER OF SEQ ID NOS: 3
SOFTWARE: Patentin version 3.1
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             b
                                                                                                                                                                                                                                                                                                                                                                                                                              or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ų.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       t, c,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         οÌ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ú
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ú
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ပဲ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ϋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 υ
Sequence 1, Application US/08916421B Patent No. 6503729
                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Methanococcus jannaschii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ίι
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: n equals a, t, NAME/KEY: misc feature LOCATION: (84808) OTHER INFORMATION: n equals a, t, NAME/KEY: misc feature LOCATION: (84812) OTHER INFORMATION: n equals a, t, NAME/KEY: misc feature NAME/KEY: misc feature NAME/KEY: misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: misc feature
LOCATION: (148948)..(148948)
OTHER INFORMATION: n equals a, t
NAME/KEY: misc feature
LOCATION: (163385)..(163385)
OTHER INFORMATION: n equals a, t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: misc_feature
LOCATION: (191989)..(191989)
OTHER INFORMATION: n equals a, t
NAME/KEY: misc_feature
LOCATION: (191995)..(191995)
OTHER INFORMATION: n equals a, t
                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: misc feature
LOCATION: (28222) .. (28222)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: misc feature
LOCATION: (231980)..(231980)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: misc feature
LOCATION: (28257)..(28258)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: misc feature
LOCATION: (84773)..(84773)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (98120)..(98120)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCATION: (98239)..(98239)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: misc feature
LOCATION: (98343)..(98343)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: misc feature
LOCATION: (103998)..(103998)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: misc feature
LOCATION: (98159)..(98159)
OTHER INFORMATION: n equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: misc feature
LOCATION: (98266)..(98266)
OTHER INFORMATION: n equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VAME/KEY: misc_feature
COCATION: (234187)..(234187)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                       LENGTH: 1664976
```

```
р
    þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ÖĽ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ör
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or
                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          o
H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 占
    or
                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                              ö
                                                                      占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                   ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: miso_feature
LOCATION: (779455).
OTHER INFORMATION: n equals a, t, c,
NAME/KEY: miso_feature
LOCATION: (779576).(779676)
OTHER INFORMATION: n equals a, t, c,
NAME/KEY: miso_feature
LOCATION: (855539).(855539)
                                                                                                                                                                                                           ΰ
                                                                                                                                         ú
                                                                                                                                                                                                                                                                                        OTHER INFORMATION: II equats a, C, C, MANE/KEY misc feature
LOCATION: (312837)..(312837)
OTHER INFORMATION: n equals a, t, c, NAME/KEY: misc feature
LOCATION: (31293)..(31293)
OTHER INFORMATION: n equals a, t, c, NAME/KEY: misc feature
LOCATION: (319226)..(319226)
OTHER INFORMATION: n equals a, t, c, NAME/KEY: misc feature
LOCATION: (559167)..(559167)
OTHER INFORMATION: n equals a, t, c, MANE/KEY: misc feature
LOCATION: (559241)..(559241)
OTHER INFORMATION: n equals a, t, c, NAME/KEY: misc feature
LOCATION: (559241)..(559241)
OTHER INFORMATION: n equals a, t, c, NAME/KEY: misc feature
LOCATION: (600992)...(600992)
OTHER INFORMATION: n equals a, t, c, NAME/KEY: misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AME/KEY: misc feature
OCATION: (741684)..(741684)
)THER INFORMATION: n equals a, t,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: misc feature
LOCATION: (871619)..(871619)
OTHER INFORMATION: n equals a, t,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: misc feature
LOCATION: (1119881)..(1119881)
OTHER INFORMATION: n equals a, t,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ú
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: Misc_feature
LOCATION: (622708). (622708)
COTHER INPORMATION: n equals a, t,
NAME/KEY: misc_feature
LOCATION: (657081). (657081)
OTHER INPORMATION: n equals a, t,
NAME/KEY: misc_feature
LOCATION: (657081). (657081)
OTHER INFORMATION: n equals a, t,
NAME/KEY: misc_feature
LOCATION: (657203). (657203)
OTHER INFORMATION: n equals a, t,
LOCATION: (674435). (674435)
OTHER INFORMATION: n equals a, t,
INFORMATION: n equals a, t,
                                                                                    NAME/KEY: misc feature
LOCATION: (234814)...(234814)
OTHER INFORMATION: n equals a, t,
NAME/KEY: misc feature
LOCATION: (309398)...(309398)
OTHER INFORMATION: n equals a, t,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: misc_feature
LOCATION: (1084830)..(1084830)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AME/KEY: misc feature
OCATION: (682442)..(682442)
WHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OCATION: (713652)..(713652)
THER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: n equals a,
                     NAME/KEY: misc feature
LOCATION: (234220)...(234220)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                            /KEY: misc feature
IION: (309418)..(309418)
R INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: misc_feature
```

539908 AAACAATTAGGGTAGATATAGTTGGAAAATGAAATGTTTCTGCCAAAGATATTGTTT 539849 539968 iridahacriatridararandakararararakarakarakarakarakarakaraka 539909 3785 AAGCCTTTGATTTAGATGTTGCTGTAAAAGAAAATAAAGATGATCTCAATCATGTGGATT 3844 3725 TTGTATATAATGTGAAGGCTTCTGGGTCTTCTAGAAGACGAAGATCTATCCAAAATCAAG 3784 3845 TGAATGTGTGTACAAGCTTTTCGGGCCCCGGTAGGAGTGGCATGGCTTTATGGAAGTT 3903 0; Gaps Query Match
1.0%; Score 41.4; DB 4; Length 1664976;
Best Local Similarity 52.0%; Pred. No. 28;
Matches 93; Conservative 0; Mismatches 86; Indels 0; NAME/KEY: misc_feature.
| NAME/KEY: misc_feature.
| LOCATION: (1637998)...(1637998)
| OTHER INFORMATION: n equals a, t, c, or g
| NAME/KEY: misc_feature
| LOCATION: (1664854)...(1664855)
| COTHER INFORMATION: n equals a, t, c, or g
| US-08-916-4218-1 or g Search completed: August 18, 2004, 00:43:10 Job time : 288 secs ör ö or ör ö ö NAME/KEY: misc feature
LOCATION: (1310988)..(1310988)
OTHER INFORMATION: n equals a, t,
NAME/KEY: misc feature
LOCATION: (1313224)..(131324)
OTHER INFORMATION: n equals a, t,
NAME/KEY: misc feature
LOCATION: (1349473)..(1349473)
OTHER INFORMATION: n equals a, t,
NAME/KEY: misc feature
LOCATION: (134941)..(134941)
OTHER INFORMATION: n equals a, t,
NAME/KEY: misc feature
LOCATION: (155020)..(156020)
OTHER INFORMATION: n equals a, t,
NAME/KEY: misc feature
LOCATION: (155020)..(156020)
OTHER INFORMATION: n equals a, t,
NAME/KEY: misc feature
LOCATION: (155020)..(156020)
OTHER INFORMATION: n equals a, t,
NAME/KEY: misc feature LOCATION: (1602912)...(1602912)
OTHER INFORMATION: n equals a,
NAME/KEY: misc. feature.
LOCATION: (1603734)..(1603734)
OTHER INFORMATION: n equals a, LOCATION: (1130881)..(1130881) OTHER INFORMATION: n equals a, 셤 à පු à ò

ô

This Page Blank (Uspto)